

# The Mining Journal,

## RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1585.—Vol. XXXVI.

LONDON, SATURDAY, JANUARY 6, 1866.

{STAMPED.....SIXPENCE.  
UNSTAMPED...FIVEPENCE.

### Mining Exchange, London.

**MINING EXCHANGE, LONDON.**  
COPY OF RESOLUTION PASSED JULY 18, 1865.  
That the MEMBERS of the Mining Exchange shall be allowed, directly or indirectly, to advertise shares at fixed prices under pain of suspension.  
Mining Exchange, London, October 20, 1865. W. E. JOHNSON, Sec.

**MR. JAMES CROFTS, SHAREBROKER,**  
No. 1, FINCH LANE, CORNHILL.  
(Established 22 years.)  
Mr. Crofts continues to recommend CHONTALES and FRONTINO shares. There is news of both at hand, and during the week FRONTINO have been in demand, at advanced prices.  
**SHARES TO BUY:**—Ding Dong, Great Busy, East, United, and Consols, Rosewarne, South Darro, North Trekerby, Prince of Wales, Chiverton Moor, North Chiverton, Hingston Down, East Lovell, Trencrom, and South Condurrow.

**MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.**  
JAMES LANE has FOR SALE at net prices:—20 Bedford United, 27s. 6d.; 5 Baller, 23½; 10 Chiverton Moor, 26½; 10 Chiverton, 29½; 60 Caldbeck Fells, 2½ prem.; 30 East Caradon, 24½; 20 Drake Walls, 24s.; 20 E. Russell, 23½; 25 E. Jane, 12s. 6d.; 10 East Carn Brea, 23½; 20 East Rosewarne, 27s. 6d.; 50 East Bertha, 2½; 20 Frank Mills, 23½; 50 Frontino and Bolivia, 30s.; 20 Great North Downs, 23½; 20 Great South Chiverton, 6s. 6d.; 40 Great Busy, 23½; 50 Great North Laxey, 26s. 6d.; 5 Great Laxey, 23½; 20 Hailenbeagle, 27s.; 50 Lady Bertha, 11s. 6d.; 5 Great Vor, 23½; 25 New Birch Tor, 23½; 20 Marke Valley, 24½; 25 North Trekerby, 23½; 20 North Downs, 3s.; 25 New Wheel Lovell, 20s.; 50 Prince of Wales, 7s. 6d.; 30 South Darro, 23½; 20 Rosewarne United, 24s.; 20 Rosewall Hill and Ransom United, 24s.; 20 Rosewarne Consols, 24s.; 10 South Crofty, 20 South Lovell, 23½; 25 South Condurrow, 42s.; 20 Tolvadden; 10 Trencrom, 24; 100 Worthing, 18s.; 4 West Bassett, 42s.; 10 Wheel Ury, 22½.

**MR. LELEAN (Member of the Mining Exchange), BUYS and SELLS** all descriptions of ENGLISH and FOREIGN STOCKS and SHARES, INSPECTS MINES, and TRANSACTS all the usual BUSINESS of a STOCK and SHAREDEALER, and parties may rely upon him for sound advice and actuality in all his engagements.

**MR. LELEAN'S STOCK, SHARE, AND FINANCE REGISTER** (December number was published on Tuesday, the 19th inst.) should be consulted by all who wish to make safe and profitable investments, giving from 10 to 15 per cent., or to review the state of the market for the preceding 30 days. Single copies, 6d. each; annual subscription, 5s. Published monthly.  
11, Royal Exchange, E.C.

**GEORGE RICE, SHAREDEALER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON (24 years' experience),** Member of the Mining Exchange, DEALS IN MINING SHARES at close market prices of the day, either as BUYER or SELLER, for cash or account. The following are the latest dealing prices:  

Latest prices.	Latest prices.
Caldbeck Fells ..... 10s. - 10s. 6d.	Frontino and Bolivia ..... £ 1¼ 1¼
Chiverton Moor ..... 6½ - 6½	Marke Valley ..... 4 - 4½
Chiverton ..... 9½ - 9½	North Trekerby ..... 3¼ - 3¼
Clifford Amalgamated ..... 20 - 20½	South Condurrow ..... 2 - 2½
East Caradon ..... 8½ - 8½	West Chiverton ..... 80 - 82
East Wheel Lovell ..... 12½ - 13½	

**SELLER of Old Tor shares. BUYER of Frontino.**  
George Rice's recent recommendations of several mines for a great rise in price have been fully confirmed; there are a few others still overlooked, which he can confidently recommend for a great and immediate rise.  
Money advanced on mining shares.  
Jan. 5, 1866. Bankers: Bank of London.

**THOMAS HAMILTON, STOCK AND SHAREBROKER,**  
1, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.  
(Member of the Mining Exchange.)

**WILLIAM WARD,**  
29, THREADNEEDLE STREET, LONDON, E.C.

**WILLIAM SEWARD,**  
19, THROGMORTON STREET, LONDON, E.C.

**MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C.,** has BUSINESS to TRANSACT, as BUYER or SELLER, in the FOLLOWING MINE SHARES:—  

Bedford United.	East Carn Brea.	Marke Valley.
Brooklyn.	East Russell.	North Trekerby.
Caldbeck Fells.	East Lovell.	North Roseker.
Clifford Amalgamated.	East Gunnslake.	North Shepherds.
Chiverton.	Frank Mills.	Old Gunnslake.
Chiverton Moor.	Gawton United.	Providence.
Crelake.	Great Laxey.	Penhale and Lomax.
Devon and Cornwall.	Great North Downs.	West Chiverton.
Ding Dong.	Great Busy.	West Caradon.
Devon Consols.	Great Wheel Vor.	Wheel Seton.
East Bassett.	Hingston.	Wheel Ury.
Chontales.	Kelly Bray.	West Maria.
Frontino and Bolivia.	Lady Bertha.	Wheel Emma.

**T. ROSEWARNE can recommend several mines safe for a great rise during the next three months.**  
Money advanced on mining shares.  
Jan. 5, 1866. Bankers: Bank of London.

**MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 11 years),** has FOR SALE the FOLLOWING SHARES, at net prices:—  

100 Frontino, 28s. 9d.	1 Foreign Lands & Mineral Rights.	50 Caldbeck Fells, 2½ pm.
25 Chiverton Moor, 26 10 9		40 Tolvadden, 8s. 9d.
100 Prince of Wales, 7s.	15 No. Trekerby, £3 8 9	25 East Rosewarne, 26s. 3d.
40 North Dolcoath, 10s.	80 Chontales, 17s. 6d. prem.	5 West Caradon, £10.
20 Rosewarne Consols, £1.	20 Rosewarne United, 22s.	50 Bottle Hill, 1s. 6d.
70 North Downs, 1s. 3d.	15 Hingston, £5 12s. 9d.	5 Margaret, £24.
10 Wheel Ury, £2½	2 Wheel Rose, £18½	40 North Jane, 12s. 6d.
20 North Crofty, 20s.	5 Great Fortune, £3½	25 Sithney Carnmeal, 1s. 6d.
15 Hailenbeagle, 27s. 6d.	40 Carn Camborne, 38s. 6d.	10 E. Carn Brea, £5 6s.
40 So. Condurrow, 41s. 3d.	5 East Lovell, £13½	10 Marke Valley, £4 3s. 9d.
10 Great Busy, £29½	5 North Roseker, £15½	2 Baller, £31½
5 Clifford, £20½	50 Harriett, 7s. 6d.	5 Ding Dong.
5 Stury Park, £29½	20 South Grenville, 6s. 3d.	2 East Bassett, £19½
20 Drake Walls, 20s.	20 Gonamena, 36s.	10 Wh. Grenville, £3s. 9d.
10 West Bassett, £1½	30 Wheel Union, 12s.	2 Providence, £29.

**JOHN RISLEY, 32, LOMBARD STREET, LONDON, E.C.,** is a BUYER of—  
Great Wheel Vor.  
Pendean.  
Stray Park.  
North Dolcoath.  
East Wheel Russell.  
Copper Hill.  
Wheel Crebor.  
Wheel Buller.  
West Caradon.  
Condurrow.

**MR. ROBERT BEETON, 27, CANNON STREET WEST, LONDON, E.C.,** DEALER IN BRITISH AND FOREIGN MINES. Business transacted with promptitude, and with strict regard to clients' interests.  
January 5, 1866.

**MR. ROBERT BEETON, 27, CANNON STREET WEST, LONDON, E.C.,** strongly recommends his friends to buy New Treburget shares, 14s. paid, without delay. The very high opinion he entertains of this first-class property is fully justified by facts, with which he will be happy to make his friends acquainted.—January 5, 1866.

**MR. WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C.,** has BUSINESS, either as BUYER or SELLER, in all good sound DIVIDEND and PROGRESSIVE MINE SHARES.  
W. TREGELLAS has FOR SALE, for immediate delivery and cash, 100 East Snodell at 40s. per share net, and 95 East Laxey at 30s. per share net.  
WANTED, South Crofty shares.

**MR. GEORGE BUDGE, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 18 years),** has FOR SALE:—  
1 Foreign Land and Mineral Rights; 10 Rosewarne Consols, 23s. 9d.; 100 New Treburget, 16s.; 100 Caldbeck Fells (20s. paid), 27s. 6d.; 200 Vale of Towry, 1s.; 30 Gawton; 10 Hithney Carnmeal; 100 Frontino and Bolivia, 28s. 6d.; 50 North Dolcoath, 10s.; 50 Anglo-Brazilian, 5s.; 30 North Jane; 10 Caradon Consols; 40 North Crofty, 18s.; 2 Buller, £31½; 50 Prince of Wales, 6s. 3d.; 2 West Chiverton, £29; 25 South Darro; 20 Marke Valley, £4½; 100 East Bertha; 50 Wheel Harriett, 7s. 6d.; 60 South Condurrow; 25 Great Busy, £29½; 20 Hingston, 7s. 6d.; 50 East Chiverton, 20s.; 50 Chontales, 16s. 9d. prem.; 70 South Grenville, 6s. 3d.; 30 East Agar, 16s. 6d.; 5 West Caradon; 1 West Sharp Tor, £54; 4 Ding Dong; 25 New Birch Tor, 23s. 6d.; 50 North Bassett; 20 Chiverton, £10½; 50 Orabor; 50 United Mexican; 40 Camborne Venn, 12s. 6d.; 20 East Grenville; 1 Minera, £267; 1 South Caradon.

### STOCK EXCHANGE SECURITIES.

Railways. Banks. English Funds.  
Financial. Foreign Funds. Discount.  
Steamship. Loan. Docks.  
Ironworks. Gas. Water Works.  
Insurance. Telegraph. Hotel.  
Marine Insurance. Land. Irrigation.  
Foreign Mines. Cornish Mines. Devon Mines.  
And other public companies.

**MR. PETER WATSON, STOCK AND SHAREDEALER,**  
begs to state that every information respecting any of the above companies may be had on personal application, or by letter, as to PURCHASES and SALES, with advice as to the most desirable investments.  
From the close proximity of his office to the Stock Exchange, and also the Mining Exchange, he is enabled to act with promptitude on all orders entrusted to him in the PURCHASE or SALE of every description of stocks or shares, at net prices for cash or fortnightly settlements.  
TELEGRAPHIC MESSAGES of customers to BUY or SELL in any of the above companies punctually attended to, at net prices for cash or half-monthly settlements, at the closest possible market prices of the day.  
Twenty-one years' experience.  
(Two in Cornwall and Nineteen in London.)  
Bankers: The Union Bank of London, and the Alliance Bank.  
The present is an unusually favourable period for the investment of capital.

A SELECTED LIST of Railways, Banks, Financial, Foreign Funds, Steamships, Foreign and Cornish and Devon Mines, &c., sent on application, with special recommendations as to investments, &c., on the distinct understanding that any business resulting through his information or advice may be done through him.  
PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London, E.C.

**MR. EDWARD COOKE, STOCK AND MINE SHAREDEALER, 2, CROWN CHAMBERS, THREADNEEDLE STREET, AND MINING EXCHANGE, LONDON, E.C.**  
Prospectuses, with interesting particulars relating to the Chontales Gold and Silver Mining Company's property, sent free by post upon application, the shares in which are deserving the attention of anyone having capital to invest, as there is every probability of their going to a very high premium. EDWARD COOKE deals in these shares, and of Frontino and Bolivia, either as BUYER or SELLER, at market prices; also in Foreign Lands and Mineral Rights Purchase shares, the price of which is from £500 to £600 per 100th part or share.  
Satisfactory references given in any town in the United Kingdom.  
Prospectuses of the Hailenbeagle and Coke Company sent free on application.  
Jan. 5, 1866. Bankers: Alliance Bank, Lothbury.

**MR. JAMES HUME, 74, OLD BROAD STREET, LONDON, (Member of the Mining Exchange).**

**MR. HENRY BULLEN, SHAREDEALER, No. 2, PARK VILLAS, FRAMPTON PARK ROAD, SOUTH HACKNEY, LONDON.**

**JOHN GREEN, MINING OFFICES,**  
9, GRACECHURCH STREET, LONDON, E.C.  
ESTABLISHED SIX YEARS.

**JOSEPH J. REYNOLDS, JUN.,**  
18, UNION COURT, OLD BROAD STREET, LONDON, E.C.

**MR. E. GOMPERTS, MINING OFFICES,**  
3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.  
BUSINESS TRANSACTED IN BRITISH AND FOREIGN STOCKS AND SHARES.  
Terms, 1¼ per cent.—Bankers: London and Westminster Bank.

**WILLIAM BARTLETT, STOCK AND SHAREDEALER,**  
No. 2, BUCKLESBURY, LONDON, E.C.  
BUSINESS TRANSACTED at close net prices in BANKS, MINES, RAILWAYS, and ALL OTHER STOCK EXCHANGE SECURITIES. Advice given as to the best paying investments. Letters and telegrams promptly attended to.  
Bankers: Alliance, Lothbury.

**NOTICE OF REMOVAL.**  
MESSRS. WARD AND JACKMAN, STOCK AND SHAREDEALERS, have REMOVED from 2, Adam's-court to No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.  
Bankers: London and Westminster, Lothbury.

**SHARP'S INVESTMENT CIRCULAR**  
(Post free).  
Should be CONSULTED by SHAREHOLDERS and the public before INVESTING. It is a "safe guide," containing reliable information and advice to capitalists.  
HENRY GOULD SHARP, STOCK AND SHARE DEALER.  
Bankers: London and Westminster, Lothbury.  
Offices, 32, Poultry, London, E.C.

**SHARP'S INVESTMENT CIRCULAR**  
(Post free).  
CONTAINS INFORMATION upon the FOLLOWING SECURITIES:—  

English Railways.	Banks.	Fire Insurance.
Foreign Railways.	Gas.	Life Insurance.
Railway Debentures.	Waterworks.	Marine Insurance.
Docks.	American Stocks.	Foreign Mines.
Discount Companies.	Foreign Bonds.	British Mines.
Colonial Stocks.	Canal.	Miscellaneous.

**ESTABLISHED 1852.**  
Offices, 32, Poultry, London, E.C.

**SHARP'S INVESTMENT CIRCULAR**  
(Post free).  
Should be CONSULTED by SHAREHOLDERS in the following MINES:—  

North Trekerby.	East Bassett.	Wheel Buller.
Clifford Amalgamated.	South Frances.	Wheel Mary Ann.

**ESTABLISHED 1852.**  
Offices, 32, Poultry, London, E.C.

**SHARP'S INVESTMENT CIRCULAR**  
(Post free).  
Should be CONSULTED by SHAREHOLDERS in the following MINES:—  

North Trekerby.	East Bassett.	Wheel Buller.
Clifford Amalgamated.	South Frances.	Wheel Mary Ann.

**ESTABLISHED 1852.**  
Offices, 32, Poultry, London, E.C.

**THE BRITISH AND FOREIGN MINING AGENCY, AND GENERAL INVESTMENT OFFICES, No. 5, FINSBURY CHAMBERS, LONDON WALL, LONDON, E.C.**  
J. P. ENDIAN, Sharedealer, &c., of 25 years' experience, deals and negotiates the sale and purchase of every marketable security, at net prices.  
TOLVADDEN.—WANTED TO PURCHASE, 1000 shares: state number and lowest price.

**BRITISH AND FOREIGN INVESTMENT.**  
MR. THOMAS SPARGO, 224, and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., TRANSACTS EVERY DESCRIPTION OF BUSINESS in the PURCHASE and SALE of SHARES in BANKS, CANALS, MINES, RAILWAYS, BRIDGES, INSURANCES, and ALL OTHER DESCRIPTIONS OF BRITISH and FOREIGN STOCK.  
MR. SPARGO has 20 years' experience of mining, ten of which he was engaged in practical mining, and ten years he has transacted business in mining shares and stock, at 224 and 225, Gresham House, Old Broad-street, City, E.C.  
Bankers: Bank of London.

**THE INVESTMENT, LOAN, FINANCE, AND BANKING AGENCY.**—The loans sustained by investors in the various miscellaneous companies for the past year are estimated to be from 20 to 30 millions sterling.  
This fact indicates most forcibly the necessity of capitalists who seek safe and profitable investments obtaining reliable information, such as this agency makes it a special business to render, founded upon many years' practical experience and data to which those only can have access who give undivided attention to the subject.  
Purchases and sales effected in railway, bank, mining, and other securities, at the usual brokers' charges.  
The loan and finance department undertakes the agency of public companies, loans, deposits, &c., and negotiates advances on stocks and shares having a market value.  
The banking agency includes the retirement of acceptances and every description of English and foreign agency business connected with the money-market.  
CHARLES PETERS, Secretary.  
No. 12, Clement's-lane, Lombard-street, London, E.C.

**MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER,**  
6, NEW BROAD STREET, LONDON, E.C.

**MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 6, NEW BROAD STREET, LONDON, E.C.**

**MR. F. G. LANE, 2, ROYAL EXCHANGE, LONDON, E.C.,** takes this opportunity of thanking his friends and clients for the liberal support given him during the past, and to inform them that from 1st January, 1866, the business will be carried on as LANE AND GIBBS.  
MR. LANE's connection of over 15 years with mining and the share markets enables him to give such advice and assistance to investors as he feels confident will be conducive to their interests. He, therefore, solicits a continuance of that support to the firm hitherto accorded to him.

**MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE, LONDON, E.C.,** AND MINING EXCHANGE, STOCK AND SHAREDEALERS, AND FINANCIAL AGENTS, transact business in all kinds of securities at closest net prices for cash or account.  
**SPECIAL BUSINESS** in Chontales, Caldbeck Fells, and Frontino, for cash or the fortnightly settlement.  
**FOR SALE:**—1 share in Foreign Lands and Mineral Rights Purchase Company (Limited). An important decision has been come to respecting this company, that will soon cause the shares to be double the present price.  
Parties of respectability can have transfers registered into their names previous to payment.  
Daily price list on application.  
Bankers: London and County Bank.

**MR. FREDERICK WILLIAM MANSELL, STOCK AND MINING SHAREDEALER,**  
26, THROGMORTON STREET, AND MINING EXCHANGE, LONDON.  
Bankers: London Joint-Stock Bank.

**MATTHEW GREENE, STOCK AND SHAREDEALER,**  
ST. MICHAEL'S HOUSE, CORNHILL, LONDON.  
Is always prepared to deal at close prices in mining shares. Parties buying or selling would do well to consult MR. GREENE.  
**SPECIAL BUSINESS** in Frontino and Bolivia, Caldbeck Fells, Clifford Amalgamated, and North Trekerby.  
MR. GREENE recommends New Clifford for investment.  
N.B.—The list of mining shares in which MR. GREENE has special business, as buyer or seller, being too large for the limits of an advertisement, full particulars can be had on application at his office. Office hours, Ten till Four.  
Money advanced on mining shares.  
Bankers: Imperial Bank.

**MR. J. B. REYNOLDS, 3, CROWN COURT, OLD BROAD STREET, LONDON, E.C.,** DEALER IN BRITISH AND FOREIGN MINES, RAILWAYS, BANKS, &c., and all securities dealt in on the Stock Exchange.  

MINES.—Business, cash or time.	Great Vor.
North Trekerby.	South Callington.
Chiverton.	Clifford Amalgamated.
Caldbeck Fells.	West Caradon.
Lady Bertha.	East Caradon.
North Chiverton.	Foreign Lands & Mineral Rights.
	New Treburget.
	Central Snailbeach.
	&c. &c.

**NEW TREBURGET.**—Reports on this property, by Capt. Henry James, James Hampton, Francis Puckey, John Dailly, and Thomas Jennings, can be obtained on application to Mr. J. B. REYNOLDS, 3, Crown-court, Old Broad-street, London, E.C., together with any other information which may be required.  
Jan. 6, 1866.

**MR. A. G. McNEILL, STOCK AND SHAREDEALER,**  
48, THREADNEEDLE STREET, LONDON, E.C.  
Bankers: Alliance Bank.

**MR. G. D. SANDY, SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C.** (Member of the Mining Exchange), TRANSACTS BUSINESS IN EVERY DESCRIPTION OF STOCK EXCHANGE SECURITIES and MINING SHARES, at the closest market prices.  
Correct Daily Price List issued gratis on application.

**INVESTMENTS FOR 1866.**—MR. G. D. SANDY'S Selected List of Mines is now ready. Parties wishing for a copy of the same should apply at once.—48, Threadneedle-street, London, E.C., January 6, 1866.

**MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.**  
CHONTALES GOLD.—MR. BATTERS, having satisfied himself of the bona fides of this important property, advises an immediate purchase of the shares, either as an investment or speculation, for a great advance in price. Full particulars given on application. MR. BATTERS is a BUYER or SELLER of these shares, at close market prices.

**MR. THOS. THOMPSON, MINING OFFICES,**  
12, OLD JEWRY CHAMBERS, LONDON, E.C.  
**OFFICE OF**  
THE GREAT LAXEY MINING COMPANY (LIMITED).  
THE SNAEFELL MINING COMPANY (LIMITED).  
THE EAST SNAEFELL MINING COMPANY (LIMITED).  
THE EAST LAXEY MINING COMPANY (LIMITED).  
THE REINNE LAXEY MINING COMPANY (LIMITED).  
THE CENTRAL SNAELBEACH MINING COMPANY (LIMITED).

**HERODSFOT MINE.—WANTED TO PURCHASE,**  
FIVE SHARES, for cash, at £38 each net. A seller to communicate with MR. TALLENTIRE, 32, Poultry, London, E.C.

**INVESTMENT FOR CAPITAL.—TO BE SOLD, A FEW SHARES** in a SLATE COMPANY, which will, it is expected, command a high premium shortly.—Apply to MR. J. W. TERRY, 17, Abchurch-lane, E.C.

**YEAR 1866.—WEST CHIVERTON MINE, CHIVERTON, WENTWORTH CONSOLS.**—Now ready (gratis), A FEW IMPORTANT PARTICULARS, of value to present holders, and of great interest and use to the public generally. BREWIS and LYNCH, 3, Crown-court, Old Broad-street, London, and New-castle-on-Tyne. No one should be without them.

**SAMUEL HILL, METAL BROKER AND COMMISSION AGENT,**  
22, CANNON STREET WEST, LONDON, E.C.; and  
8, HOPE BUILDINGS, SOUTH CASTLE STREET, LIVERPOOL.

**MR. T. L. TREMAINE, AUCTIONEER, APPRAISER, &c., LISKEARD, CORNWALL.**

**MESSRS. C. THOMAS AND CO., CIVIL AND MINING ENGINEERING OFFICES,**  
POOLFOLD CHAMBERS, CHAPEL WALKS, MANCHESTER, AND REDRUTH, CORNWALL.

**MR. JOHN ROBERT PIKE, MINING AND GENERAL SHAREDEALER, 8, PINNER'S COURT, OLD BROAD STREET, LONDON.**  
Telegraph messages receive prompt attention.  
Established Twenty Years in Cornwall and London.

Now ready, third edition, revised and enlarged,  
**BRITAIN'S METAL MINES:**  
One shilling, or free by post for 12 stamps.

**BARRETT AND CO., No. 9, SPRING GARDENS, CHARING CROSS,** are PREPARED to GIVE EVERY INFORMATION on BRITISH and FOREIGN MINES, and have a large number of SHARES FOR SALE, which will pay from Fifteen to Thirty per cent. Their "Investment Review" can be had on application, and contains some of the safest and best securities in Mines, Railways, Eastern and Indian Stock, &c.

**MR. D. STICKLAND, M.E.,** having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.  
MINES INSPECTED and faithfully REPORTED ON. DEALER in MINING RAILWAY, and OTHER SHARES.  
His monthly Circular forwarded on receipt of six postage stamps.  
Criddiss Mine, St. Issey, Padstow, Cornwall.

**JOSEPH TAYLOR AND CO., FINANCIAL, MINING, AND GENERAL COMMISSION AGENTS,**  
17, CROSS STREET, MANCHESTER.



## Original Correspondence.

## FREEING COLLIERIES OF INFLAMMABLE GAS.

SIR.—The late sad catastrophe at Merthyr has induced me again to intrude on your valuable space, in reference to my invention for removing the carburetted hydrogen, or inflammable gas, from coal mines. It has been my unceasing study, and so certain am I of its unflinching action, that I think it a thousand pities it should not be thoroughly investigated, and some effort made to get it adopted; the only objection seems to be the expense. But surely that ought not to be such a grave consideration, when we think how many valuable lives are yearly sacrificed, to say nothing of the immense amount of damage done to collieries, in the event of an explosion—damage oftentimes of treble the amount it would take to put into practice my very simple method. I earnestly hope some scientific gentleman will take the trouble to investigate it. I shall be most happy to give the fullest information verbally, and by illustration, as I have an apparatus for the latter purpose. I some time ago stated I had removed 14,850 feet of inflammable gas from the Bwlfa Pit in five days; if such a quantity of the deadly element could be clearly taken out in such a short time, why not a whole mine be cleared by this sure and silent operation? I am not thus urging the case from any selfish motive; as, should it be adopted, I should reap no pecuniary benefit, my patent having some time expired. I now, for the sake of humanity, most strenuously urge some one who has at heart the interest of the poor hard-working collier to give this matter the attention it merits.

JOHN GRIFFITH WILLIAMS.  
Blaenavon, Jan. 2. Gas Proprietor.

## THE FORMATION OF COAL.

SIR.—I am almost afraid that those who took any interest in the letters on this subject, which appeared some weeks since, have forgotten the points at issue between Mr. Young and your correspondent. The subject is, however, one of permanent interest, and the fact that business engagements prevented me from writing earlier should not interfere with what I have further to say in the controversy. It appears that Mr. Young in England, and Mr. Eli Brown in America, claim the honour of independently discovering, about the same time, "the true origin of coal." They are of opinion that coal was formed from oil; or, in other words, that coal was at one period in a liquid state as oil. This is certainly a new and somewhat startling theory, opposed to the investigations of our ablest and most cautious scientific writers. But it should not be despised on that account. The heterodox in science to-day becomes to-morrow the orthodox belief of the learned world. That has always been the case, and the novelty of the "oil theory," and its rejection by the many, should not in the slightest degree influence our judgment. Still we must rigorously examine and test new theories before accepting them, and that was my object in addressing you. It occurred to me that there was no better way of testing the theory than by discussing it here in the presence of practical men, whose hard, common sense shatters that which is hollow and worthless. Neither Mr. Young nor Mr. Eli Brown can possibly have any other purpose than to get at the truth. They can have no ambition to be handed down to future generations with the originators of "old women's fables," and the discoverers of "perpetual motion" and the "philosopher's stone." No, no. We are all at work in one common field of investigation, where nothing is substantially gained by making "the worse appear the better reason." And in examining obscure questions, such as the origin of coal, I can well understand the uneasiness occasioned by the want of sufficient evidence to account for all the phenomena that occur. Geologists are, from the nature of their pursuits, speculative. They trouble themselves very little about filling up gashly breaks in a system with millions of years and with the inscrutable events of countless cycles. But the mind trained in the exact sciences, where two and two always make four, chafes and worries itself with theories having one foot a fact and the other without any resting place. We must, however, move on faster than material evidence will permit. The perturbations of the planets proved the existence of unknown bodies before they were observed, and the geologist, be he ever so visionary, often anticipates what is afterwards established on the surest foundations. Let us, then, in the spirit of honest yet kindly criticism discuss the new theory propounded by Mr. Young and Mr. Eli Brown. But before doing so you will, I know, permit me to clear away the misapprehension by Mr. Young of the remarks which I made in a previous letter.

The first demonstration in proving the oil theory is thus stated by Mr. Young:—"It is consistent with the purity of coal, for all impure and foreign substances which did not decompose would most likely be of greater specific gravity than oil, and consequently sink to the bottom." In reply I said—"In this large sense coal is not pure. Every seam constantly varies in quality within a very limited area. In the South Wales coal field a seam which in one colliery is of prime quality is in an adjoining colliery unworkable. The impurities, too, are not at the bottom, but run through the seams irregularly, sometimes as a band of culm, impregnated with disintegrated sandstone and clay, and at other times as compact shale, and again as a carbonaceous grit, held together by sulphide of iron." Mr. Young questions the accuracy of this statement, and asserts that coal is pure in the sense spoken of by me, fortifying himself with a quotation from an elementary book by Richardson, which has no bearing whatever on the point. Richardson affirms the purity of coal, while I affirm the impurity of seams of coal. There is a wide difference between the two propositions. Coal taken from a seam intersected with grit, or clay, or iron is no doubt pure, but it does not prove that the seam itself is pure; and cannot, therefore, sustain Mr. Young's theory, which rests upon the "impure or foreign substances . . . of greater specific gravity than oil . . . sinking to the bottom." The fact is, these substances have not gone to the bottom, which they would have done if the coal was at any time of the consistency and specific gravity of oil. I have myself often seen *in situ* coal seams intermixed with foreign substances to such a degree as lessened the value of the coal at least 50 per cent. It is nothing unusual in some districts to find these irregularities running in every direction through the seams, wholly inconsistent with the oil theory. If necessary I will name seams, and refer in each case to sections in support of what I advance. But practical men need no such proof.

Then, again, the difference in quality is not attributable to faults, as alleged by Mr. Young. Faults never affect the quality—*or*, rather, they neither increase nor diminish the impurities in the seams. They are simply cracks in the seams, which by upheaval or subsidence alter the relative position of the pieces. At the point of fracture the edges are broken and crushed, but no impurities are added. The quality of the coal in a seam, however, varies even in the same colliery, and taking a wider area the variations are still more marked. For instance, in Gwendraeth Valley, South Wales, the Stanlyd vein is of the prime quality and about 6 ft. thick in the north, while in the south it is a slim, profitless vein, not worth working. In fact, the upheaval and consequent breaking of coal, or of any rock, does not change its quality in the sense under consideration; and I am really surprised that Mr. Young should have been so reckless of his reputation as to hazard such an opinion, even to sustain a pet theory.

I now come to the third proposition, which Mr. Young gives in these words:—"The general uniform thickness of each seam of coal is perfectly in accordance with the idea of a liquid ultimately condensed." I endeavoured to show that this proposition is not based on fact, as the seams of coal are really not of one uniform thickness; and in proof I gave two sections from the Government Survey, which Mr. Young misrepresents, or perhaps I ought to say that he does not appear to comprehend their scientific meaning. The sections represent the same seams in two districts, some distance apart, establishing beyond doubt the fact that they differ in thickness, and in the number and character of the intermediate rocks. The sections have no other significance pertinent to this enquiry. Mr. Young, however, whose references never rise beyond the simplest elementary works, rushes to Page's "Text Book of Geology," from which he takes a definition of the "order of succession among stratified rocks," for which I am indebted to him, although there is nothing new in it to me. But if he venture beyond text books into elaborate memoirs—*or*, what is far better, if he venture into the coal fields which have been least disturbed by diamic action—he will readily discover that the seams are not of one uniform thickness. A section, too, cuts through the same vein several times, and in almost every case presenting the inequalities I have indicated. In South Wales the seams are often bent into undulations, the upper angles of which in many places strip by denudation, enables the observer to test my assertions. But in subsequent communications I hope to adduce such unquestionable evidence as will satisfy, if not convince, Mr. Young.

Let us for a moment imagine the coal seams in a liquid state, with the

edges open all round the basin. Leaving out of consideration the temperature required, what would be the result with the superincumbent weight of enormous masses of rock pressing on the "oil seams?" Would the oil remain in the seams, or flow over the edge of the basin? Let Mr. Young, or any of your readers, try the experiment on a small scale, by putting into a basin sufficient liquid of the consistency of oil, and then pressing a smaller basin into it with very moderate force. The oil would soon appear over the rim of the basin and down its outer sides. I am aware it is possible to parry this objection, that no seam was ever liquid all at the same time, but that will no more support the new theory than a seam of oil, 8 or 10 ft. thick, would support 1000 ft. of sandstone, without running to waste.

I must now pause, my letter having extended further than I at first proposed; and I do so, promising to return in a week or two to this subject, with the intention of showing that the old theory is more reasonable—is sounder than the new; and, more, that the "oil theory" is a mechanical and chemical impossibility.

SAMUEL THOMAS.

## THE VALUABLE DISCOVERIES OF NATURAL MANURE IN MONTGOMERYSHIRE.

SIR.—In the Journal of December 16 I saw a letter calling attention to the valuable manurial deposit at Pen-y-garnedd and Cwmgyon. It is also highly spoken of in the *Western Morning News* of December 22, as regards Pen-y-garnedd. Now, I find the same vein has been found and worked on at Pwll-yr-wrach, which is to the west of Cwmgyon, only a brook dividing the two properties. This property has been taken up by a mine agent of the neighbourhood, and with every apparent chance of success. Extent of ground, about a mile west of Cwmgyon, with ample supply of water at all times. The deposit has been analysed by Dr. Voelcker, and its accuracy fully confirmed by Dr. Sibson and Messrs. Nesbit and Co. Pwll-yr-wrach being a little further from the railway, will cause the cost of transit to be a trifle heavier. Truly we may speak of this as being a very important and valuable discovery.

CADNO JONES.

Cennant, Dec. 30.

## SLATE QUARRIES.

SIR.—As I see no notice in the Journal of Saturday of the rise in the price of slates, I am glad to inform you that from this date there will be an advance of from 2s. 6d. to 3s. per ton, which, of course, is exactly the same amount of absolute profit to all quarry proprietors. As I know that you would be glad to be furnished with the above information, I take the opportunity of making a few remarks on the general prospects of slate matters for the year just commenced.

I see, not only from your Journal, but also from other sources, various indications of new slate companies starting, and of old companies parcelled out, to form what may be called new grafts on the old stock. The modes of recommending the different companies to public favour are as distinct as the names of the companies. Some rely on their ability to pay a considerable dividend at once; others calculate their make of slates by thousands, without distinguishing quality, sizes, or colour. The public should have more data than these on which to form their opinion of the value of a quarry. Let me state some of the main qualifications for a good quarry—

- 1.—The length and width of the vein or veins.
- 2.—The quality of the slates made; proportion of best to seconds in all slates made.
- 3.—Their colour—blue, grey, red, black, and whether spotted or otherwise.
- 4.—Whether they can be worked straight out of the hill-side, or require water-balances and pumping machinery.
- 5.—The number of pits, doors, or galleries that they can work without machinery.
- 6.—What depth of top rock they have to remove before slates are made.
- 7.—What length of track-note.
- 8.—Amount of royalty and dead rent.
- 9.—If the quarry had been worked before why was it discontinued?
- 10.—Look for a satisfactory report from an eminent slate quarry manager who is a Welshman.

All these questions should be ascertained, and if they should be answered satisfactorily there will be no doubt whatever of the security. It will also be good if the major part of them (considering the value of each question) were so answered.

CAMBRIAN.

## THE SLATE TRADE—THE BEDDGELEERT QUARRIES.

SIR.—Of all our national industries not one has been more prosperous in the past year, 1865, than that of the production of slate. Viewed from the point either of home consumption or foreign demand, the result is equally satisfactory. Owner and workman have alike prospered—that is, in their connection with genuine quarries, honestly worked. Some cases have, of course, occurred where the results have been disappointing, and losses have been suffered, but these are exceptions. As a rule, the slate industry of North Wales has been highly remunerative, where it has been properly directed; and at the commencement of a new year it is gratifying to observe that the demand is quite as great, if not greater, than it was at the beginning of the year 1865.

During the year just closed the production of roofing-slate has not kept pace, or anything like it, with the demand. Unfortunately, there are no accessible statistics to show the amount of the home trade in this native product, while as to foreign shipments the Board of Trade takes no cognizance of them whatever. The state of the trade, home and foreign, can, therefore, only be learned indirectly; and herein the Principality has just cause for complaint, for if its importance were made known upon official authority more capital would be attracted into it, the resources of Wales would be more rapidly developed, and a wholesome competition would arise, whereby the really good quarries would be appreciated, and the bad or doubtful offender left to their fate.

Though the production of slate in 1865 has increased, there have been very few new quarries opened. The old quarries have chiefly furnished the additional supplies. Hence the advance in the price of certain descriptions which has now taken effect. It follows that consumers, if they want more slates, without being compelled to pay more for them in 1866 than in 1865, should encourage more than they have been accustomed to do the opening and development of new quarries where there is a real promise of good slate. This is the only way by which moderate prices can be secured and the trade be kept in a permanently sound and healthy condition. The largest and the best of the recently-opened quarries in North Wales are unquestionably those of Berthlwyd and Gerriant, in the parish of Beddgelert, a few miles from Port Madoc. They are called "The Beddgelert Slate Quarries," and they will amply repay the trouble of a visit to them by all or any interested in the slate trade. They will find there a noble area of more than 300 acres of the finest slate rock, separated from the little River Mor by a parish road, and by a grand escarpment about 100 yards high. Into this escarpment a tunnel has been driven into the heart of the slate, and it is intended to open lateral galleries on each side, so that while these galleries will connect themselves with two quarries, where slates are now produced to the extent of 10,000 or 12,000 per week, the works as they are developed will all be open to the day. They will then form a series of working galleries from the lowest level to the highest, and in a few years the parish of Beddgelert will be able to show a young slate quarry, no mean rival to those old ones of Mrs. Asheton Smith and Col. Pennant. Already about 110 men are constantly employed upon these works, and the slate produced finds a ready market at Port Madoc, and at as good prices as those of the oldest quarries in the neighbourhood. Quarries of this sort are what consumers and the public should in their own interest foster and encourage. By-and-by these quarries will have the advantage of railway connection with no less than three of the principal shipping ports for slate—Port Madoc, Carnarvon, and Bangor. With an inexhaustible supply of the pure rock, with a demand far in excess of the present power of production, the owners of this fine property may be congratulated upon holding a position of superiority in respect of their access to the best markets. At present the undertaking is in private hands, and a large amount of capital has been expended in bringing the quarries to their present stage of development. But a strong company is in course of formation, by whom they will be further developed; and the hope may reasonably be expressed that they will receive the active and hearty co-operation of the trade and of the public.

Considering the extent to which new habitations are rising up in all the towns of the United Kingdom, not a single doubt can be felt as to the continuance of the demand for slate. The days of the old red tiles, which disfigure the houses in all the lower parts of London, are over. The laminated flags used in some of the northern towns for roofing are gradually disappearing, displaced by light and elegant slates. But to prevent a return to such substitutes—substitutes nearly as bad as the original thatch still to be seen upon old barns and outhouses on neglected estates—there must be no further advance in the price of slates. At present prices their production is remunerative to owner and workman, and capital will readily be found for the purpose of increasing the production. But the advance cannot reasonably be carried further. To meet the continually increasing demand,

the introduction of new quarries ought to be encouraged by capitalists, provided always that, like those of Beddgelert, they are really slate quarries. Interested as everybody is in commercial and social progress, the slate trade, and the general public as well are, therefore to be congratulated upon the actual and prospective addition to the means of supply presented by the Beddgelert Quarries, which to be properly appreciated ought to be seen.—Jan. 1.

OBSERVER.

## COPPER MINING IN CANADA EAST.

SIR.—That copper ores, chiefly the yellow sulphurets, do extensively abound in the eastern townships of this province is, I presume, a fact which has been fully established; so much so that about two years to eighteen months since quite a mining fever existed, tracts of mineral land in abundance were located, and great numbers of mining companies were organised, with millions of money nominally appropriated to develop the vast field of wealth. But, instead of applying capital to lay open the mines, the greater number of these companies confined their operations to mining in the cities, by jobbing both real and imaginary stock in the market; and a majority of those who made trials at the mines have done exceedingly little work. These circumstances, however, have not diminished the real value of the mineral wealth of the province; nor does this temporary freak apply to copper mining in Canada East alone; very many of the readers of the Journal will remember that similar incidents have occurred regarding the copper mines of Lake Superior some eighteen to nineteen years ago; and long since that time the gold fields of Colorado, the silver veins of Nevada and Arizona, as also several others, might be cited as having passed the same ordeal, but have since that time, and are now, being legitimately developed, and are numbered among the richest mining fields in the world.

In Canada East a few companies have continued to do a little work by sinking shafts and extending drifts, and in most cases the results are as good as can, or ought to, be expected.

In the township of Ascot I understand there are several very good young mines, and there is a smelting-works at Lennoxville which I am told works admirably well, in bringing the ore into a regulus to economise the expense of transportation. The ores of the district make a very free slag. Lennoxville is situated in the township of Ascot, alongside the River St. Francis, through which the Grand Trunk Railroad passes from Portland to Montreal.

At Windsor Mills, a few miles further west, on the banks of the same river and railroad, Messrs. Sheldon and Andrews have a powder manufactory, with a capacity to make 100 kegs per day. They make a good article, and their charges are moderate.

I think mining in general in this province may be regarded as merging from a system of abuses into a practical shape. Recently a new district has come into notice in the township of Bolton, county of Brome, where a vein of yellow copper was accidentally discovered by wood-choppers. A shaft some 50 feet deep is in progress of sinking by a double set of hands and a horse-whim; this shaft is 8 ft. wide by 12 ft. long, in the midst of a vein of nearly solid yellow sulphurets of copper, without having either wall. Several car-loads of these ores have been sent to market, producing on an average 15 per cent. pure copper, and as depth is attained the ore increases in value. I understand that the returns from this shaft alone cover the current expenses. A second shaft is being started on the same vein with similar results; this vein or bed has been traced for a distance of upwards of two miles, with copper in gossan cropping out to the surface. Other veins bearing copper and float-stones of copper ore have also been found in the neighbourhood of the above discovery.

The geology of the district consists mostly of talcose, chloritic, micaeous, schistose, and quartzose slates, interlaminated with beds of serpentine, dipping about 80° to the east, and bearing from 20° to 30° east of north. The beds of copper appear to select the serpentine for a footwall, similar to the conglomerate as a footwall to the copper beds in the Ontonagon district of Lake Superior. The district of Bolton has hitherto been almost altogether neglected by explorers until the late discovery referred to, but is now attracting considerable attention.

B.

Knovilton, Canada East, Dec. 21.

## MINING IN VIRGINIA, NEVADA, U.S.

SIR.—I had the pleasure of meeting a few days since a gentleman who has just returned from Reese River, having been sent there as agent for one of the English companies formed for operating in that section of country, and concerning which I wrote you a few months ago. I am pleased to find that he agrees with me in my estimation of their value. He could not fail to do otherwise. I understand, moreover, that he has purchased a property adjoining the Confidence Mine there. I had a long conversation yesterday with one of the owners of the Confidence Mine, who informs me that this adjoining property has every chance of turning out valuable, but is as yet thoroughly untried.

We are just in the midst of a regular panic in mining stocks. Every stock on the list has depreciated enormously in value during the past month—none less than 50, and many 300 and 400 per cent. The primary cause of this is said to be that most of the stock operations have been carried on with borrowed money, and that the banks in San Francisco, getting frightened at the suspension of dividends by one mine after another, and by heavy assessments being called for to meet past debts and provide for future working, have been calling in all their loans, and in order to realise the same have been forcing all the hypothecated stock upon the market. This is doubtless the immediate cause, but the drop in stocks was bound to come sooner or later, for prices here have ever ruled far above the intrinsic value of the mines. The custom here has always been not to require the mines to pay fair dividends on the amount of capital invested therein, but by speculative action and uncalculated expectations of wealth to force the quotations of stocks up to figures far beyond their real value, and then to expect dividends of 4 or 5 per cent. per month on that increased value. Take, for instance, the Gould and Curry Mine; the total assessments (or calls) had not amounted to more than \$300 or \$400 per foot. But when a rich bunch of ore was struck, and dividends appeared looming in the future, a wild excitement began. Trustees and superintendents, all being "green" at the business (I am speaking of three years ago), knowing nothing of the uncertainty of mineral business, assumed that their rich deposits would last for ever. The stock was forced up and up till it reached \$5000 or \$6000 per foot, to pay dividends on which from 20,000 to 30,000 tons of ore per month were extracted. What young and undeveloped mine could stand it? Add to this reckless extravagance and blind ignorance in the working of the mine, and you have at once the whole history (not as regards this mine alone, but with others on the Comstock vein) of the inflation of the Washoe bubble, and the causes of its bursting.

Within the past year or two, however, things have changed. Competent miners have assumed the management of the mines, explorations are being judiciously carried on, the character of the vein is being more thoroughly studied, and, as a natural consequence, more thoroughly understood, and everything is settling down upon a permanent basis. Another obstacle which has interfered to an extent which would be hardly credible in England with the workings of our mines has also been almost entirely removed—I mean litigation. This has been the curse of this country. Until recently, at least one in every ten of the male population of Virginia City was either a lawyer or a hanger-on of law courts. All these had to live, and the only way in which they could do this was to foment incessant lawsuits. The moment a company would strike anything, where "the carcass was would the eagles be gathered together." North, south, east, and west would jumpers come, and locate what they called parallel and "blind" ledges. Legal aid would be called in by the rightful owners to eject the interlopers. Cross injunctions would be issued, stopping all works. Then would commence the farces in the law courts, the never-ending tale of bribed judges, jurors, and witnesses, outside the mine, while inside each company would maintain a perfect body of rowdies, armed to the teeth with revolvers and knives, ready to commence a "free fight" upon any intrusion into each other's ground. But things have settled down at last. It is demonstrated beyond a doubt that on the eastern slope of Mount Davidson and the adjacent range there is but one ledge—the "Comstock"—and so litigation has almost ceased between the mines. The "Wild Cat" mines have all been stopped, and the rightful owners allowed to pursue their own way in peace.

But one company on this ledge is now paying dividends—the Imperial of Gold Hill, which is paying a dividend of \$10 per month per share. Each "foot" is divided into 22 shares, so that each holder of (say) 1/4 in. on the run of the ledge is receiving \$10 per month. I believe I have before explained to you the way in which mines are taken up and held here. Each original locator is entitled to 200 ft. on the run of the ledge, and in incorporating a company afterwards the "foot" is taken as a basis upon which to issue the shares. Some companies make each foot represent one share, while the Imperial, as mentioned above, divides each foot into 22 shares.

The Gould and Curry, which has been the steadiest dividend-paying mine, has been obliged to suspend dividends for a time, in order to lay in their winter supplies; they will, however, soon recommence paying them. The Ophir has lately levied an assessment of \$100 per foot, to provide funds for their lawsuit with the Barringer Moscow Company; this suit has just been settled, and closes out all the important ones on the calendar. This is the first assessment ever levied by this company.

The Savage Company, in debt to the tune of about \$150,000, has also levied an assessment of \$100 per foot. The Chollar Potosi Company is in debt about \$200,000. This debt was incurred by the Chollar and Potosi Companies respectively, prior to their consolidation, and was simply for expenses of litigation. The total amount paid out for legal expenses by these two companies, prior to their consolidation, exceeded \$1,000,000. This company will probably levy an assessment shortly. The Yellow Jacket Company is in debt something over \$200,000, and have recently levied an assessment of \$100 per foot.

These are the principal mines which have ever paid dividends. The Mexican, Empire, and Belcher have also paid dividends, and at the present time are about paying their way, as also are some of the smaller mines in Gold Hill, holding each a few feet on the ledge. The other mines here have to levy assessments regularly, being non-productive, such as the Sierra Nevada, Hale and Norcross, Bullion, Crown Point, Overman, and Uncle Sam. However, by the New Year we hope to have all the debts paid off, and to start clear of all incumbrances, and there can be no doubt that by proper management, and the exercise of due economy, there is a glorious future before the mines on the Comstock, a way providing, while prophesying "a glorious future," that the vein continues productive in depth; that is a veritable "pona asinorum," over which our would-be Solons are eternally exercised. Meanwhile, it is mortifying to one who has the interest of the mines at heart to see how little is being done towards developments in depth. The Gould and Curry, and the Chollar Potosi Companies are the only



water, so that had it not been for the unusually heavy rains which we have had the shaft



named would are this have been drained, and we should have sunk it to the 20. We have, however, pleasure in saying that the water has fallen 8 ft. in the shaft since Saturday, and we are, therefore, assured of being able to resume sinking it in a day or two; and the 30 being also within a few fathoms of it, to continue it to that level also, without further hindrance from the water; it is now 3½ fms. under the 10, where the lode is 2½ ft. wide, yielding grey copper ore in gossan, and being of precisely the same character as the lode in the 20, having rapidly improved in the last few feet sunk. We are sinking a winze from the 20 to the 30 in the ore ground, at about 15 fms. west of the winze already sunk between these two levels; this is for the purpose of laying open the ore ground for stoping, by which we shall be able to drain the ground, and break the ore to much greater advantage than we could otherwise do, and render it for sale of better quality; this winze will also afford ventilation to the ends; the lode here varies in value from 10l. to 20l. per fm., and the winze is sinking by four men, at 2l. per fm. The 20 has been driven about 12 fms. east of King's shaft, where the lode has been from 1½ to 2 ft. wide, yielding occasionally small bunches of tin; driving by one man and one boy, at 15s. per fathom. The deep adit level has been driven west of Vivian's shaft about 80 fathoms, carrying all this distance through a gossan lode, varying from 2 to 3 ft. wide, and yielding occasionally a little tin. The prospects, therefore, for driving deeper levels under this appears to be very good. We estimate that our monthly cost in the accounts for the next general meeting will not exceed that of the present one, and that our credits for copper and tin will amount to fully 1000l., whilst in case the levels turn out according to our expectations we may be able to do better than this. We consider the prospects of the mine to be much better than they have hitherto been.—JOSEPH VIVIAN AND SON, WILLIAM WILLIAMS.

The CHAIRMAN said the report just read so fully detailed the various points of operation that nothing was left for him to state with regard to the position of the mine or its prospects. So satisfied, however, was he with the intrinsic merits of the property that he had determined at once considerably increase his interest, for he thought there could be no doubt, from the position of the mine, its extent, and the number of lodes that intersected it, combined with the fact that it possessed great facilities for an economic development, that South Condor would soon become a most remunerative undertaking. He certainly saw no justifiable reason why the shares should be selling in the market at such a ridiculous price. It was necessary to mention that a letter had been received by Mr. King from a shareholder who held upwards of 600 shares, referring to the importance of sinking the engine-shaft, as also the winze below the 40 without delay. The writer of the letter further stated that he found from an examination of the books of the company that the bankers had received the call of a shareholder, less the discount, although the call was not paid until two months after the date allowed for discount. The writer thought it was but right the matter should be brought before his co-adventurers, so that the amount so deducted might be debited against the shares held by that gentleman. He (the Chairman) had himself investigated the matter, and found that the writer of the letter was perfectly correct in what he had stated; but he had no doubt, from the respectability of the shareholder in question, the amount would be paid forthwith.

A SHAREHOLDER said, from information he had been able to obtain, there appeared no doubt that if a small call were made upon the present occasion, and they only met with ordinary success, South Condor would be brought into a profitable condition, and that no further calls would be required, at least during the present year.—MR. HUXE said that at no previous time did South Condor present such favourable prospects.

The SECRETARY stated that since the last meeting a new lease of the property had been executed, and the amount incurred thereon charged in the balance-sheet, the manager had stated that everything had been changed up, and that there were no outstanding liabilities. The only machinery that could possibly be required would be a drawing-engine and crusher, the cost of which would, no doubt, be paid out of the profits of the current year. The elaborate report received from the manager would, he was sure, be read with satisfaction by all the shareholders.

Mr. PENNINGTON had always entertained a very high opinion of the set, and from its present position he looked upon South Condor not as a speculation, but as an investment.—MR. RICE also expressed a favourable opinion of the property.

A call of 1s. 6d. per share was made. Upon the proposal of Mr. HUXE, seconded by Mr. PENNINGTON, Messrs. Burgess, Buckland, Weston, and Jefferys were appointed the committee of management.—A vote of thanks to the Chairman terminated the proceedings.

#### LLANRWST SLATE-SLAB QUARRY COMPANY.

The adjourned extraordinary general meeting of shareholders was held at the London Tavern, on Dec. 29, to receive the report of the Committee of Investigation appointed to furnish the shareholders with every information obtainable, and to advise as to the course to be pursued.

Mr. RICKETTS in the chair.

The notice convening the meeting having been read,

The CHAIRMAN said, before calling upon the secretary to read the report of the committee he wished to refer to a most incorrect report which had appeared in one paper of what he (the Chairman) had stated at a previous meeting; and in addition to the incorrect statements several names were mentioned, although he (the Chairman) distinctly stated that he would refrain from mentioning names. One of the incorrect statements made was to the effect that only two of the original directors had paid on the shares they had subscribed for, who were Dr. Nolan and Mr. Strong—he (the Chairman) made no such statement, and he made this explanation to prevent shareholders being misled.

The report was then read. It called into question the various statements put forth in the prospectus, stated that the opinion of Mr. Gifford (the counsel) had been received, as to the validity of the lease; and Mr. Gifford considers that Mr. Rawlings had power to assign to a limited liability company. The committee could not help advertising to the position of Mr. Rawlings, the vendor of the quarry, whom the original directors engaged as the resident manager at a salary of 250l. per annum. They regard this amount excessive, considering the small amount of capital subscribed. He was also not removable for 12 months, unless for some flagrant breach of trust. This officer seemed to have acted very much as he liked at the quarry, and manifestly up to the present time without any benefit to the shareholders, considering that the amount of business done does not exceed 5l. The committee have also been credibly informed that this well-paid officer of the company has been, while in their service, in negotiation with the freeholder of an adjoining quarry, for the purpose of establishing a rival company, which was only prevented by the farmer threatening to give up his farm if another field was opened for the purpose. The shareholders at the meeting on Dec. 15 will recollect that an appointment was made with Mr. Short, the late chairman of the company, to meet the committee of investigation, but owing to a trial in which he was engaged, and which will be hereafter referred to, he was prevented from fulfilling it, but addressed a letter explaining his connection with the company, and again proposed to meet the committee, should they wish to see him. They did not think it necessary to make any further appointment. The balance-sheet made up to Dec. 1 shows that 200 shares wholly unpaid, the arrears of which are 400l., are due to the company by five of the directors, who signed the Memorandum of Association, but never paid a farthing. They have recently been applied to for the amount, but have refused payment, alleging their non-liability—one by the name of Fitzgerald, no longer a member of the board, has actually lodged an attachment at the company's bankers for his fees for attendance as director. Since Dec. 1 and 1500l. and 200l. have been received on account of calls. There has also been a large sum of 225l. 14s. 9d. paid for debts and costs to a person named Williams, which ought to have been paid by the promoter, Mr. Walker. There has likewise been a balance of a bill paid by Mr. Combs for law charges. The outstanding liabilities are 3000l. In bills, the balance of the purchase-money of the quarry is a question, taking everything into consideration, whether the payment of these should not be resisted. The claims besides against the company are small, but there are various claims for which the promoter is liable, and for which application has been made to the company. Before concluding, the committee were desirous of referring to the anomalous position in which the manager, Mr. Rawlings, Mr. Walker, the promoter, and the late Chairman, Mr. Short, stand towards each other. Many probably are not aware that Mr. Walker and the late Chairman, Mr. Short, appeared a few days since in the Court of Exchequer, before the Lord Chief Baron, the former as plaintiff and the latter as defendant. The action was to obtain the restoration of 200l., which the plaintiff alleged the defendant had retained out of the purchase-money for the quarry, and which the plaintiff said he allowed upon the understanding that the defendant was to take up and pay for 40 fully paid-up shares. At the trial the plaintiff swore that he was the vendor of the quarry, yet the company have a deed wherein Mr. Rawlings conveys the quarry. The committee, taking into consideration the circumstances attending the sale of the quarry, at a price so many times above its real value, the comparative worthlessness of the material, and its unmarketable character in London, can arrive at no other conclusion than that the most desirable course is to wind-up the company by the strong arm of the law; and they, therefore, recommend and advise that a special meeting should take place to obtain the sanction of the proprietors to wind-up the company in the Court of Chancery. (The committee consisted of Messrs. R. U. Potts, W. Potts, W. Jones, G. Charlton, and A. Wilmore).

Mr. SHORT (the late Chairman) complained that throughout the whole report there was a want of *amor propre*. In reply to the statement "that a large portion of the 15,000 shares proposed to be issued had been already subscribed for, whereas it does not appear that at that time any shares had been applied for," he stated that 3000 shares were applied for by one gentleman, who sent up to London securities to be sold for the purpose of taking up such shares, and he (Mr. Short) at the time strongly objected to any one shareholder holding so large a stake in the concern. This application, however, was afterwards withdrawn. The next statement made by the committee was that the assertion put forward in the prospectus that the parochial authorities purchase all the waste for repairing the roads is not the fact, inasmuch as only six loads have been taken at 2s. a load, whilst the company have had to cart away upwards of 1500 loads; and the manager informed the directors that the work could not proceed unless 1500 loads more were removed. It was a pity (continued Mr. Short) that the committee did not at least use common sense, for they admit that six loads had been sold at 2s. per load, which showed that there were purchasers for it. With reference to the statement in the prospectus that "no promotion money will be paid," the committee stated that "they find, under the convenient name of preliminary expenses, that no less a sum than 1500l. was paid by the directors to Mr. Walker, the so-called promoter and secretary *pro tem*. His expenses for printing, advertising, &c., could not have amounted to more than a small portion of that sum. Notwithstanding this, the present Directors have had claims made and an action brought against them for expenses incurred by the promoter, with latter, owing to peculiar circumstances, they have been compelled to settle." He (Mr. Short) quite admitted all that was said under that head, but it was so set forth in the prospectus, although he took exception to it at the meeting in July last. It was stated in the Articles of Association that it was to be so paid, and not in *perpetuum* but a compulsory clause. The next point referred to by the committee was with reference to the statement in the prospectus "that the quarry has been thoroughly proved throughout, also that careful surveys and examinations have been made." These statements (say the committee) may be taken for what they are worth; considering that when the prospectus was issued, and long after, not a director (with the exception of Mr. Allen, who was deeply interested in the scheme) had visited the quarry to test the validity of such assertions." In reply to the other statements the committee had made, he stated that one of the directors had a private examination of the property made, and paid 5l. towards the expenses, and another gentleman made an examination of the property which lasted several days, and so satisfied was he with the result of that inspection that he subsequently joined the board. As regards the manager not being able to speak the Welsh language, that was not only highly improbable, seeing that he had resided in Wales 10 years, and during that period had had under his care 600 Welsh workmen, respect to the question of contract, he might inform the committee that one of the chief things that induced him to take up this concern was a letter received offering to take 400 tons of this material, although the offer was subsequently refused. As regards the non-marketable value of the slates in London, he did not think it was ever intended that London should be the only market; on the contrary, one of the directors told him that a cargo had been sent, he believed, to Dublin, where it had realised a profit of 50l., and if that result could be realised upon cargo it could not doubt be realised upon many. Therefore, he did not think it was such a worthless property as had been represented. He further stated that at the time the prospectus was issued he was not in England. If any person was to be blamed it was he whose name was placed in the Articles of Association as the head of the company. As far as the property itself was con-

cerned, he felt fully persuaded that it would eventually prove very valuable; for if not, why should one of the directors be looking after adjoining properties with the view of purchasing them?—A DIRECTOR: That I emphatically deny, Mr. Short.

Mr. ALLEN said if any blame attached to the original directors, surely the same blame attached to those who had joined the board subsequently. As regards the value of the slates, that was proved from the fact that there was a large demand for them in the neighbourhood, and he had understood that any quantity could be sold in Liverpool at remunerable prices.

The CHAIRMAN said as regards the tenor of Mr. Short's defence.—MR. SHORT: Sir, I take objection to the term defence.—The CHAIRMAN: Well, as regards Mr. Short's statements, he, in reply, might perhaps be permitted to refer to the statement in the prospectus that a large proportion of the 15,000 shares had been applied for—that large proportion, Mr. Short now informed them, consisted of 3000; but he (the Chairman) had strong reason for believing that the gentleman who applied for those shares was induced to do so through the statements put forward in the prospectus.—MR. ALLEN: It was in accordance with a promise previously made.

The CHAIRMAN: It was certainly most untrue that even those 3000 shares were subscribed for at the time the prospectus was issued.—M. SIFKIN said he had merely stated what was told to him. He believed that the preliminary prospectus was shown to this gentleman.—The CHAIRMAN, referring to the statement that a contract had been entered into for the sale of the slates, all he could say was that the letter alluded to by Mr. Short was dated May, whereas the prospectus was issued to the public in April.

Mr. SHORT said the offer he had referred to was made to the board in writing.—The CHAIRMAN said if that was the case, let it be put upon the minutes.—MR. SHORT: That was a question which the secretary could answer, for he (Mr. Short) was not the Chairman at the preliminary meeting.

It was agreed to convene a meeting for the winding-up of the company.

A vote of thanks to the Chairman terminated the proceedings.

#### SOUTH WHEAL FRANCES MINING COMPANY.

A general meeting of shareholders was held at the Account-house, on the mine, on Monday.—MR. R. R. BROAD (of Falmouth) in the chair.

The usual preliminaries having been disposed of, the accounts, showing a credit balance of 578l. 4s. 3d., and a loss of 65l. 11s. 11d. on the two months' working, were submitted, together with the agent's report, which appears in our Mining Correspondence.

It will be remembered that the legal proceedings between the adventurers in South Frances and West Bassett have now been in hand between 7 and 8 years, and there can be no doubt that the great body of the adventurers—themselves, probably, as a rule, happily in ignorance of the glorious uncertainties of the law—have thought that greater diligence might have been used in bringing the proceedings to a close. There was, first of all, the case of Reynolds v. Buckley, at the assizes at Bodmin, in March, 1858, in which South Frances was successful; then came the cross action of Lyle v. Richards, in the autumn of the same year, in which West Bassett adventurers were victorious. Afterwards the whole question was gone into in the Exchequer Chamber in 1861, when the eminent counsel, Mr. Lush, apparently exhausted the case; and subsequently, after West Bassett adventurers had given notice of appeal to the House of Lords, they gave way at the last moment, and paid the damages, with interest, &c., at very great cost. How many other suits have been prosecuted by the West Bassett adventurers through their indefatigable solicitor, Mr. Finch, we do not now recollect, but it is very generally credited that upwards of 10,000l. have already been expended, every decision but one having been in favour of South Frances. The last decision was, we believe, in July, 1864, in the Exchequer Chamber, when the whole of the judgment—seven in number—was pronounced in favour of South Frances; and the much vexed question will now probably be finally settled during the next two or three months.

Messrs. Smith and Roberts were, very naturally, highly indignant at the tone and tenor of Mr. Donnthorne's circular. Mr. Donnthorne claimed the first hearing at the meeting, but this was accorded to his opponents. Mr. SMITH, in his address, which occupied two hours in delivery, and which was frequently received with great cheers, recapitulated, in an eloquent, but straightforward and business-like manner, the whole of the proceedings in connection with the lawsuit, and was followed by his partner, Mr. ROBERTS, with even more warmth than was displayed by Mr. Smith.

Mr. DONNTHORNE then addressed the meeting, and proceeded to vindicate the course he had taken, and to cite cases in favour of his views from law reports, &c., but was received with much impatience, and on one or two occasions was obliged to appeal to the Chairman for a hearing. He concluded by proposing that the services of Messrs. Smith and Roberts, as solicitors to South Frances Mine, be dispensed with; and suggested that Mr. Downing, of Redruth, or Mr. Trythall, of Penzance, should be retained in their stead. This motion was seconded by Mr. N. DONNTHORNE, who received other support.

As an answer to Mr. J. A. SPARGO, of Falmouth, moved that the services of Messrs. Smith and Roberts be retained, which was seconded by Mr. JACOBSON, of Falmouth. Preparations were then made for the usual voting, and an array of proxies were forthcoming on both sides; when Mr. HEARD, of Truro, rose and ventured to suggest to Mr. Donnthorne and the meeting generally that after the ample and straightforward explanation which had been given by Messrs. Smith and Roberts, whether it might not be most undesirable to proceed to a poll, more especially when the feeling of the meeting had been so unmistakably manifested after they had heard the triumphant vindication of the law by the judgment of the House of Lords.

This proposal was received with general approbation, and Mr. DONNTHORNE rose and said that as Mr. Heard had appeared as a mediator on the occasion, and out of deference to the feeling of the meeting, he would not proceed to a poll; and ultimately it was proposed by Mr. HEARD and seconded by Mr. J. A. SPARGO, and resolved *nem. con.*—That this meeting having heard the exhaustive statements made by Messrs. Smith and Roberts, relative to the long-pending litigation between South Frances and West Bassett, is of opinion that the very best that of every adventurer is due to those gentlemen, and they left off weaker.—The meeting, for the untiring zeal and persevering energy they have shown in the interest of South Frances adventurers, and desires to express its full and continued confidence in them as the legal advisers of the mine.

#### TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has not been very active this week, and the amount of business appears to have been very restricted; but there is evidently a tendency to improve, from the numerous enquiries which are being made for dividend and leading progressive mines.

WHEAL SETONS have been in request at fair market quotations.—WEST SETONS are less active, and more freely offered.—CLIFFORDS have been done at lower rates, and rather quiet.—EAST BASSETT and WHEAL BULLER are not so firm, and show a weaker tendency.—WEST CHIVERTONS have been in good demand, and several transactions reported.—CHIVERTONS are more freely offered, but without a material change in price.

CHIVERTON MOORS considerably advanced, and large numbers changed hands, but they left off weaker.—TUCKERS are less active, but sought for at buyers' prices.

SOUTH CONDORERS are in better demand, and prices have, consequently, improved.—GREAT LAKES continue to maintain their quotations, and in fair request.—WHEAL GRENVILLE and EAST GRENVILLE have been dealt in as usual, but at lower rates.

NORTH TREKERRIES have been in good request at improved prices, and numerous transactions reported.—NORTH R-KEARS have been rather quiet.—GREAT BUST, HALLEN-BEAGLE and GREAT NORTH BEARS have been more than ordinarily quiet since last noted.—GREAT WHEAL VOGES have been in better request, and improved in price.

EAST WHEAL VOGES have changed hands at lower figures, although no change has taken place in the mine.

EAST ROSEWANNES have been enquired for, at minimum quotations.—ROSEWANNES UNITED have been sought for, at buyers' prices.—ROSEWANNES CONSOLS are quiet, at present quotations.—PROVIDENCE MINES are sought for, at fair market prices.—EAST CARADONS have not been very active, but a slight rise has taken place.—MARKE VALLEYS are sought for, and changed hands at quoted prices.—WEST CARADONS are in better demand, and slightly improved.—TARLAWNS are sought for, at buyers' prices.—HINGTON SWAMP and UNITED are enquired for, at minimum quotations.—DRAKS WALLS have been in good demand, at present figures.—PRINCE OF WALES shares have been in active demand, and large numbers changed hands. From the enquiries made, and the prospect of the mines, there is a strong tendency to greatly advance.—LADY BERTHAS, although quoted lower, have been done at higher prices, arising from a shortness of stock to meet the requirements of last settlement.—EAST RUSSELL and WHEAL CREBOR continue dull, at present prices.—CALDECK FELS have been less active this week, but left off apparently firm, at quoted prices.—FRONTING and BELVIA have sustained a considerable decline, in consequence of the increased probability of the anticipated rain of gold by the latest mail. The explanation afforded by the agents at the mines appears to have but little weight with market operations, but the country is represented to be in so disorganised a position as to render the transit of any large quantity to the port unsafe.

PRINCE OF WALES.—The removal of the former water-wheel, and the erection of a more powerful one, as well as the recent breakage of the flat-rods, are all now in perfect order. The driving of the 45 has been resumed, where the lode is yielding fully 4 tons of copper ore per fm., and looking well for greater improvement as the driving progresses.

ROSEWANNES.—The engine-shaft, which has been in progress for some time, continues to improve, and from present appearances is likely to open out a valuable course of ore. The 60 west is also looking better, and improving as the drainage progresses. Other places are much the same as for some time past, yielding the usual quantities of ore.

CARNORON MINES are represented as opening out far better than for some months past, affording a slight profit upon the three months' working, during which period nearly 1200l. worth of tin has been returned. The ends generally have improved, and leaving fair tribute ground, which will pay for working. The lode in the 135, east and west of the engine-shaft, is producing some good working, whilst the 124, both east and west, are yielding good stones of tin. An improvement is shortly expected in the 100, west of Pearce's shaft, as they are approaching the shoot of tin gone down from the 88, the development of which is likely to prove productive and profitable. Other places are yielding their usual quantities of tin-looking well for improvement.

DEVON WHEAL LOPES.—The starting of the splendid water-wheel is necessarily retarded, waiting some castings from the foundry, which are daily expected, during which the men are employed in costaining for other lodes known to exist. JAMES LANE.

From Mr. JAMES HUME.—Business on the Mining Exchange for the last week or two has been limited to a few prominent mines only, but as we are now fairly into the year 1866, we may reasonably look forward to an early revival of dealings in general stocks, and seeing that a time of peace is promised us we may venture to indulge all the more in hopeful anticipations. There is an excellent list of mines dealt in and readily marketable, both of the dividend and the progressive class, and no one having capital to invest need feel of making a very suitable and profitable selection. There are even some which give promise so unmistakable, that it would be an injustice to their merits to class them as speculative, for such mines as have a valuable ore-bearing lode, proved for a given length, and of such strong and masterly character, as to admit of no doubt of its increasing productiveness in depth, becomes then an investment requiring only the development of the property to enhance its value.

One of the first mines of this class I believe to be SOUTH CONDOR. At the meeting, held on the 2d inst., a call of 1s. 6d. per share was all that was required to put the mine in a self-supporting position. This, it is understood, is the final call, and the shareholders may congratulate themselves on the value of their property. The course of ore in the West Bassett lode may be considered proved 50 fms. long; a shallow level has, however, been driven 80 fms. further than this, on an equally promising lode, so that the company will, ere long, possess a course of ore 130 fms. long, and of very rich quality. Not only a winze has as yet been sunk, so that nearly the whole of what is discovered stands as reserves to be taken away for market at the proper time. The sales of ore will be increased as the levels become advanced into the ore ground. Shares are in demand, and are becoming scarce. CHIVERTON MOOR is of the same character, but requiring time to prove the extent of the ore, the 40, now driving, being the first productive level; but it is certainly a very promising one, giving proof of a good mine on no distant day. CARN CARBORNE is also opening up a good mine, and shares are cheap. DRAKS WALLS and WHEAL UNITED shares should be looked after at the low quotations. Not only a winze has as yet been sunk, so that nearly the whole of what is discovered stands as reserves to be taken away for market at the proper time. The sales of ore will be increased as the levels become advanced into the ore ground. Shares are in demand, and are becoming scarce. CHIVERTON MOOR is of the same character, but requiring time to prove the extent of the ore, the 40, now driving, being the first productive level; but it is certainly a very promising one, giving proof of a good mine on no distant day. CARN CARBORNE is also opening up a good mine, and shares are cheap. 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the north side of the 30, east of incline shaft, is small and unproductive, and the south cannot be taken down until we are a little further in out of the way of the skip. The north part of the lode in the 30, west of same shaft, is 6 inches wide, composed of quartz and spots of lead, and letting out a little water. The south part is standing in this also. The lode in the 20, east of incline shaft, is 2 1/2 ft. wide, composed of loose quartz, mudi, spots of blende, and stones of lead. In the 20, west of same shaft, the lode is 4 1/2 ft. wide, composed of quartz, mudi, and lead, worth for the latter 1 ton per fathom. The wide, composed of quartz, mudi, and lead, worth for the latter 1 ton per fathom. The lode in the 10, west of same shaft, is composed of quartz, mudi, and good stones of blende. In the adit level west the lode is 2 ft. wide, composed of gossan, quartz, and very good stones of copper ore, also some black oxide of copper. In Jose's winze, below the adit, the lode appears to be composed of quartz.

ALTEN and QUENANGEN.—Dec. 7: Estimated produce for November:

Mines.	Ore.	Per cent.	Copper.
Raipas .....	Tons 20	5	1.00
Old Mine .....	150	4 1/2	6.75
United Mines .....	10	5	0.50
Quenangen .....	140	6	8.40

Total .....

RAIPAS.—The 10 ft. level workings yield some good stones of ore occasionally, but those in the shallow adit are not so productive. No lode has been met with in the 30 producing sufficient ore to pay; we have, therefore, determined on carrying the level a few fathoms further to the south-west, in search of the lode. This mine is, on the whole, poor at present.

OLD MINE.—North Workings: The lode in the 5, above the tramway, are equally productive, and yield fully 3 tons of ore per fathom. The footstope over the above lode is not so good, but the ground is easier, and yields about 1 1/2 ton of ore per fathom. In the side adit, south of the main lode, the ground is also easy, yielding 2 tons of good ore per fathom. The lode is large in the sink above the tramway, but not productive. The lode above the archway near the cross-course are still productive, yielding nearly 2 tons of good ore per fathom.—South Workings: In the 10, south of the cross-cut, the lode assumes a good appearance, being 2 fms. wide, and yielding 4 tons good quality ore per fathom. The rise in the same level has not fallen off, although the side mentioned in my last report still continues to disorder the lode. The vein still yields 5 tons good ore per fathom, and the lode continues 4 ft. wide. The lode north of the cross-cut has a more promising character, being 2 feet big, and yielding 1 1/2 ton per fathom. In the level north of the cross-cut the lode is 2 1/2 ft. wide, but not very productive at present. In the sink the lode is 4 ft. wide, in easy ground, and yielding stones of ore. The roof at the 10 is looking well; lode 2 1/2 ft. big, and promising to become more productive. The tribute pitches are variable, but still producing ore in payable quantities. On the whole, the general appearance of this mine is good, and very promising for future discoveries. The tribute pitches at Woodfall's are equally as productive as when last reported.

QUENANGEN.—We continue to receive encouraging reports from these workings. At E. lode we are driving the adit level on the western side, with encouraging indications, as we have already met with strings of blue ore. Cedar's lode has undergone one of those sudden changes during the last few days, and we have now to pass through a hard bar of grey quartz before we again reach the vein; but from the experience we already have we do not anticipate any material falling off in the monthly returns, but rather, a sudden change for the better, as is often the case. We find that the lode becomes more compact again after encountering these hard quartz layers. In the north-west cross-cut the lode shows signs of improvement, and on the south side of the lode we have excellent bunches of ore. The ore driving is being conducted with spirit, and we have now 16 horses engaged in bringing the ore to port. During the last three weeks we have been visited with stormy weather, principally from the west and south-west, which has prevented our ship, *Edwards*, from getting to Kijk. We have despatched the *Hugner* to the same destination to fetch ore, and we intend chartering another ship in a few days, with the same object.

RHEINISH CONSOLS.—George Sweet, Dec. 29: Bliebach and Christians: The lode in the driving west in the 10 lode level, at Astley's, is still worth 5 tons per lode, and on the south side of the lode, the south part of the lode, the purpose of letting down the water from the sink at the adit level; the part of lode carrying in this adit will produce 2 tons per lode. The water in the sink is lessening. The north lode in the end, driving east at Wright's 10 lode level, is worth 15 centners of lead ore per lode; the western end, on the same lode, 12 centners; the lode in the back, 10 centners; the drive from No. 1 winze, on middle or old north lode, 20 centners; and the drive east on this lode, at the 10 lode level, 8 centners per lode. The lode in the drive east, on the south lode, has been cut off by a kluft; we have not yet found the part of the lode east of the kluft. We intend during the coming month to set two new stopes—one on the north lode and the other on the south. The foundation for the new engine at Christians is being cleared, and we hope very shortly to commence building the loading.—Fahrenberg: The drive on the side lode south has again improved, the end being now worth 30 centners per lode, and the stopes equally good.—James Watt: We have not yet found the lode east of the kluft in the eastern drive. The winze sinking in bottom of the 10 lode level is worth 12 centners per lode, and the stopes, as usual, about 10 centners per lode. The estimated quantity of ore for January month is 45 tons.

CAPULA.—Capt. Paul, Nov. 26: In the shaft we shall now be able to sink about three-quarters of a vara weekly. The ground is hard at present, but in the course of another vara we may expect El Carmen and San Ignacio lodes to come in, on which the ground is more favourable. The water is nearly all gone from San Onofre winze, below San Enrique level. Six natives sunk 1 1/4 vara last week, and broke several bags of good ore. Next week, if not hindered for want of powder, I expect at least thirty bags of good ore. This is a very promising point, and the water sinks nearly as fast as it does in the shaft. The water is not yet gone from the bottom east of the shaft on El Carmen and San Ignacio lodes, although it is so much nearer than the San Onofre. San Enrique lode is suspended for the present for want of powder; the lode is very large of gossan colour, with metal of low ley, some of which would pay for returning. There are here a hacienda at the mine. In the Esperanza we have driven 2 1/2 varas through the south lode, and reached the south wall. The lode is already 4 varas wide, nearly 2 ft. of which is in good ore; the water is gradually sinking in the level, and as soon as it is dry we shall be able to increase the extraction considerably. As we get under the old workings of La Ciguena and Santa Ana, I fully expect to meet with a bonanza.

LAGUNA.—Mr. Kule, the manager in Mexico, writes under date Nov. 28: Herewith I beg to hand you account of torto No. 18 at the Mint, and east of reduction. The mine still continues to look just the same in the west end, but there has not been much work done in the month, owing to the scarcity of powder. With the week past we have obtained two arrobas, at the high price of \$9 per arroba. We hope to make up for the lost time by driving westward, where the ore has a good appearance for a vara in width.

VALLANZASCA.—James Roberts, Dec. 26: Battigio: The produce of the establishment for the last 39 working days has been 262 ozs. of gold, of which 216 ozs. are herewith remitted, the amalgam existing at the mine not yet smelted being equal to about 46 ozs. more. The above 262 ozs. were obtained by an average daily working of 15 new mills. The winter having now set in, we have commenced to adjust the 20 new mills on the lower floor, so as to have them in perfect working condition by next spring. We shall likewise commence the construction of the mill on the upper floor, and hope to finish this next spring. The stone-breaking machine on the way to Battigio will be put up at once, and thus effect a great saving of labour. Although the success of the new mills has been fully proved by this year's working, they have never yet been in the efficient state in which they will be next year, after the contemplated improvements are made. We are pleased to inform you our prospects at the mines continue favourable. We shall open during this winter new ground on the Sasso Nero lodes, which will enable us to obtain an additional supply of rich ore next year. The lode in No. 1 level is 2 ft. wide, and the western part of it is composed of ore yielding 3 ozs. of gold per fathom. The lode in the lode in back of the lode is 2 ft. wide, and as good as ever. The results obtained during this year, and the general progress of the mine, enable us to look forward confidently to most satisfactory returns during the coming year.

VAL TOPPA.—William Jenkin, Piedimulera, Dec. 24: The produce of these mines by the working of the native mills since last remittance, and which has been forwarded to the office, is 171 ozs. 1 dwt. 7 grs. of fine gold, obtained from 171 tons of ore. The first instalment of the machinery has arrived from England. The carpenters are at work on the water-wheels. The machinery house is covered in, and the water-course being completed by a great force of men. We fully anticipate the completion of the establishment during the coming year. The supply of ore continues as great as ever. We have a magnificent lode in back of Marmo Rosso level, 5 feet wide, and worth fully 2 ozs. of gold per ton of ore.

VICTOR EMANUEL.—Thos. Roberts, Dec. 28: Miggiandone: We have shipped 43 tons of copper ore from this mine. The lode in the bottom of Falconer's level, on new discovery, is worth 40 l. per fathom. We shall sink on this as soon as the end of the level is further advanced into the mountain. The lode in back of the same level are worth 12 l. per fathom. The end of Thompson's level looks very promising for the beginning of a new shoot of ore; lode 2 ft. wide, and contains rich stones of copper ore.—Bavono: From this mine we have shipped this month 9 1/2 tons of very good copper ore. The lode in the end of 35 metre level north, driving towards the new shaft, is 4 ft. wide, a promising lode, but not yet worked at present. The lode in the lode in back of this is worth 14 l. per fathom. The lode in the lode in back of the lode is 10 ft. wide, and is worth 10 l. per fathom; cost of stoping 2 l. per fathom. In the lode in the 35 metre level south the lode is 2 ft. wide, worth 12 l. per fathom. During this winter we shall make a communication between the new shaft and this level, after which our mining operations will be carried on with much less expense, and with greater speed.

VAL BIANCA.—The auriferous copper lode, on which we have commenced to drive in this mine, continues of great success. The principal lode is composed of rich copper ore, dolomite, and a little iron pyrites. Several branches will fall into it very shortly, in 3 or 4 fms. driving, when a body of rich ore may reasonably be looked for. The copper ore contains about 15 per cent. of copper. We have amalgamated by native mills 1 ton of the lode, without selection, and have obtained from it 17 dwts. of gold. There is no doubt whatever that when the workings on this lode and on other existing in this set shall have been extended a regular supply of gold ore will be obtained from them. With this view, we ask to be authorised to commence the erection of amalgamating mills at Val Bianca, where a permanent stream near the mine can be made available for their use. This is done we shall be able to make returns of gold as soon as more ground is opened. We consider this mine one of the best discoveries made in our vicinity.

QUICKSILVER.—We have just seen specimens of cinnabar, taken from a mine recently discovered, that compare favourably with the richest ores of the New Almaden. Practical men, who have examined both localities, are confident that the new discovery will eclipse the fame of each of the Almadens.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending December 31 was 15,811. 16s. 10d.

CURE OF ASTHMA, COUGHS, &c., BY DR. LOCOCK'S PULMONIC WAFERS.—From Mr. H. Armstrong, Chemist, Church-street, Preston.—"I have numbers of cases of asthma and coughs by Dr. Locock's wafers. Even children of two or three years of age I have seen them given to, and they have cured them." To singers and public speakers they are invaluable for the voice. They have a pleasant taste. Price 1s. 1/2d., 2s. 3d., and 4s. 6d. per box. Sold by all druggists. Beware of counterfeits.

HOLLOWAY'S PILLS—THE READY REMEDY.—When winter sets in the human constitution undergoes many trials, from some of which disease will spring, unless the blood repelled from the surface of the body find organs capable of receiving it, and secretions adapted to consume it. This preservative power is admirably displayed by proper doses of Holloway's pills, which relieve the liver, kidneys, and bowels from undue congestion, by immediately augmenting their secretions, and so diverting any surplus quantity of blood from a situation where its continued presence must be mischievous. With these pills and an attentive perusal of their accompanying directions, no great judgment nor much experience is required to conduct even the delicate through the trying time of winter.

## SALES OF COPPER ORES.

COPPER ORES SOLD AT THE CORNWALL TICKETING OFFICE FOR THE QUARTER

ENDING DECEMBER, 1865.—

Mines.	Tons.	Amount.
Devon Great Consols .....	6132	£34,083 6 6
Clifford Amalgamated .....	3574	14,061 14 0
South Caradon .....	1550	13,631 1 0
West Wheel Seton .....	1557	9,608 3 6
East Caradon .....	1177	5,222 18 6
Wheel Friendship .....	1710	5,150 10 0
Wheel Seton .....	1235	7,725 0 0
Marke Valley .....	1235	4,726 18 0
Wheel Basset .....	519	4,653 19 6
East Carn Brea .....	1070	4,573 10 6
West Basset .....	627	4,417 10 6
Wheel Rose .....	885	4,332 7 0
Prosper United .....	1063	4,165 18 6
Phoenix Mines .....	1204	3,727 9 6
Devon and Cornwall .....	1261	3,277 10 6
West Damsel .....	680	2,082 2 6
Rosewarne United .....	370	3,008 17 0
Hingston Down .....	506	2,963 9 0
North Trekerby .....	440	2,804 13 6
Fowey Consols .....	455	2,676 8 0
Brookwood .....	524	2,333 6 6
Carn Brea .....	501	2,340 3 6
Craddock Moor .....	356	2,181 11 0
Par Consols .....	261	2,052 2 6
Bampfylde .....	156	2,031 6 0
Bedford United .....	594	1,956 18 6
West Tolgus .....	332	1,789 16 6
Great North Downs .....	377	1,738 4 0
South Crofty .....	284	1,691 2 0
Hallenbeagle .....	346	1,686 5 6
East Pool .....	443	1,672 6 0
East Rosewarne .....	191	1,500 0 6
East Basset .....	221	1,473 18 6
Great South Tolgus .....	274	1,445 8 6
Wheel Polmar .....	194	1,304 4 0
Wheel Margery .....	353	1,292 16 6
North Rosker .....	163	1,126 5 6
Glasgow Caradon .....	321	1,121 5 0
Okel Tor .....	356	1,034 15 0
West Caradon .....	174	1,025 6 0
Copper Hill .....	190	968 10 0
South Wheel Frances .....	112	953 14 0
West Sharp Tor .....	67	853 8 0
Rosewarne Consols .....	103	847 5 0
Kelly Bray .....	177	826 0 0
Tincroft .....	172	745 10 6
Dolcoath .....	143	732 9 0
Fock Beguil .....	36	727 18 6
Carn Camborne .....	185	727 11 6
Botallack .....	67	688 2 0
Great Wheel Busy .....	250	686 12 0
Wheel Emma .....	109	653 14 0
Levant .....	94	626 18 6
East Wheel Grenville .....	138	626 3 0
Cargoll .....	40	619 0 0
East Wheel .....	143	591 6 0
New Wheel Martha .....	333	585 6 0
Wheel Crebor .....	132	553 2 0
South Wheel Tolgus .....	115	535 12 6
Wheel Curtis .....	127	535 2 0
Mellaneer .....	140	527 16 0
Great Brigan .....	66	513 3 0
South Dolcoath .....	60	479 8 0
New Cornish .....	122	479 6 0
Tolcath .....	91	448 6 0
North Downs .....	74	412 9 0
North Wheel Robert .....	88	408 2 0
South Condurrow .....	40	401 0 0
Wheel Buller .....	89	372 12 0
North Basset .....	69	368 9 0
Condurrow .....	89	354 13 0
Furdon .....	93	334 2 0
Trefry's Regular .....	94	281 7 0
Sorridge Consols .....	70	274 11 0
Graham and St. Aubyn .....	46	266 11 0
West Stray Park .....	30	263 17 0
Nangiles .....	42	232 8 6
Tolvadden .....	50	228 16 0
South Carn Brea .....	65	228 14 0
Wheel Grenville .....	28	222 15 6
Lady Bertha .....	85	216 15 0
Wheel Unity Consols .....	24	216 15 0
Trevethan's Ore .....	6	216 0 0
Crane .....	27	214 11 6
Wendron Consols .....	14	213 15 0
Pendens Consols .....	58	207 7 0
Gonamena .....	83	204 1 0
Boscawell .....	23	201 5 0
South Crinins .....	34	198 4 0
Molland .....	42	196 0 0
Hawkmor .....	67	184 2 6
Champion's Ore .....	32	159 0 0
North Granbler .....	30	163 15 0
New Treleigh .....	51	142 6 6
Collacomb .....	68	133 1 6
New Rosewarne .....	24	135 0 0
Wheel Polharmon .....	32	132 0 0
Wheel Gilford .....	88	124 16 0
Falmouth and Sperries .....	37	115 2 0
Pedn-an-drea .....	21	114 0 0
Crowan Consols .....	19	99 15 0
Tresavean .....	30	88 10 0
New East Russell .....	20	84 0 0
Wheel Tremayne .....	8	83 0 0
Great Wheel Alfred .....	16	79 4 0
Wheel Trunack .....	15	57 17 6
Camborne Vein .....	17	54 16 6
Wheel Ellen .....	20	51 6 0
Wheel Agar .....	9	50 3 0
Wheel Uny .....	10	50 0 0
South Bedford .....	28	46 18 0
Prince of Wales .....	9	45 9 0
Huckingham's Ore .....	14	35 0 0
East Trekerby .....	5	33 17 6
Wheel Sparrow .....	15	27 10 0
Daniel's Ore .....	8	25 4 0
West Great St. George .....	10	25 0 0
Tucker's Ore .....	6	24 18 0
Enys's Ore .....	7	21 3 6
West Grylls .....	6	21 3 0
Tredinnick's Ore .....	12	20 3 6
Wheel Anna .....	4	19 16 0
Endean Freepitlate .....	1	12 18 0
Devon Copper .....	4	8 4 0
Chappell's Ore .....	20	3 0 0

## COMPANIES BY WHOM THE ORES WERE PURCHASED.

Vivian and Son .....	6645	£38,850 7 8
Freeman and Co. ....	2486	15,174 12 6
P. Grenfell and Sons ..	3547	24,000 16 1
Sims, Williams, & Co. ..	5004	21,605 11 3
Williams, Foster, & Co. ..	7025	37,290 4 7
Mason and Elkington ..	5884	19,901 7 11
Bankart and Sons .....	3013	11,895 1 3
Copper Mines Company ..	2685	12,130 1 1
Charles Lambert .....	1169	4,108 13 6
Newton, Keates, and Co. ..	558	3,093 18 5
Sweetland, Tuttle, and Co. ..	1732	7,133 12 7
Pencalld Copper Company ..	128	688 18 0
Hadland and Co. ....	286	846 15 6

Total .....

Business in the CORNISH MINE SHARE MARKET is still very limited, but the dullness which pervades it will undoubtedly be dispelled as the year advances. CAMBORNE VEAN (shares, 1/4, 1/2): The lode in the 262, east of shaft, is worth 10 l. per fathom; the 262, west of Grylls, 15 l. per fathom; the 252 east, 7 l.; west, 6 l. per fathom. Other parts of the mine remain unchanged. Price Share-list: Carn Camborne, 1 1/2, 1 1/4; Chilverton, 9/8, 10/8; Chilverton Moor, 6 1/2, 7; Clifford Amalgamated, 20, 21; Cook's Kitchen, 8 1/2, 8 1/4; East Basset, 19, 20; East Carn Brea, 8 1/2, 8 1/4; East Lovell, 13, 14; East Grenville, 3 1/2, 3 1/4; Great Vor, 34, 35; Great Trekerby, 3 1/2, 3 1/4; Providence, 38, 40; Rosewarne United, 1 1/2, 1 1/4; South Condurrow, 2 1/2 (all paid of 1s. 6d. per share, made on the 2d inst.); South Frances, 21, 22; Stray Park, 8 1/2, 10; Tincroft, 19, 19 1/2; Treloy Consols, 3 1/2, 4; West Chilverton, 8, 8 1/2; West Seton, 18, 19 1/2; Wheel Buller, 3 1/2, 4; Wheel Margaret, 6 1/2, 7; Wheel Seton, 21 1/2, 21 1/4.—ALBERT E. PRINCE and Co., *Pennu, Camborne, Jan. 4.*

LISKEARD SHARE MARKET.—A lack of activity still pervades the Mining Market, and prices remain about the same as last week, with the exception of Chilverton, Chilverton Moor, and South Condurrow, which have been done at an advance, as per quoted prices: North Trekerby, Wheel Seton, and West Seton offered at lower rates; New Trelawny, 10s. premium—the application for shares being so numerous, the directors have decided on closing the share-list on the 20th. A considerable diminution in the imports of foreign ores may now be looked for, as most of the Chilean ores shipped previous to the commencement of the blockade have arrived at our ports, so that we cannot anticipate any further returns from that quarter for a lengthened period. Looking at the latest aspect of affairs between Spain and Chili, which must decidedly have a beneficial effect on our home copper mines, and create a further advance in the standard of copper, as the smelters will shortly begin to find the scarcity of ores from the cessation of these imports, which will show a deficiency of about 2500 tons monthly on Chilean ores only, I think the opening of the new year presents a good opportunity for investing in a selected list of low-priced dividend and progressive mines:—Chilverton, 10; Chilverton Moor, 7; East Caradon, 8 1/2; Gonamena, 13 1/4; Herodsfot, 39; Lady Bertha, 15s.; Marke Valley, 4 1/2; North Trekerby, 3 1/2; South Condurrow, 2 1/2; Trelawny, 19; West Chilverton, 8 1/2.—M. W. BAWDEN.

## Mining Correspondence.

## BRITISH MINES.

BAGTOR.—W. Hoeking, Jan. 4: We are making greater progress in extending the 30, west of Prosper engine-shaft, than for some time past, and though we have not yet reached the cross-course, the appearance of the ground and lode indicate our near approach, the lode at present being 1 ft. wide, discharging much water, and producing tin throughout. In the 20, driving east of Quickbeam engine-shaft, I have set the men to cross-cut through the south part of the lode, which is now standing whole for many fathoms; this lode in the adit level, driving west, has improved since my last; it has become larger, and is now 2 ft. wide, yielding some rich saving work. Our machinery throughout is working well.

BEDFORD CONSOLS.—J. Mitchell, Jan. 3: In the middle adit level cross-cut north the ground still continues hard and slow of progress, but is of a highly mineralised character. No. 2 south lode is at present disordered by a small cross-course; it is about 2 feet wide, containing mudi, quartz, and kilaas, and will yield 1/2 ton of good quality ore per fathom, and I think will further improve at no great distance further driving.

BEYFORD UNITED.—J. Phillips, Jan. 3: The stopes throughout the mine continue to produce the usual quantity of ore. In the 103 west the lode is reduced in size, and value, being now 2 1/2 ft. wide, and yielding from 1 to 2 tons of ore per fm. We have not taken down the north lode, but shall cut through the lode in the different points of operation so as to give a full report for the meeting.

BEDOL-ACR.—January 3: Crofts's shaft has been sunk 5 yards 1 ft. during the past month; now down about 42 yards from surface; the ground is rather stiff for sinking. The end driving south-west on St. Vincent vein is still looking very kindly, producing 5 cwt. per fm. The lode in the vein sinking below the 70, on the Seven Stars vein, has improved during the past week, having got into ground more congenial for ore, producing about 6 cwt. of lead per fm. The stopes in back of the 70, on the Bryn's vein, is yielding some fine lumps of good quality ore. We have commenced to drive east on the south part of the Milver vein; it is looking very kindly, and producing some stones of lead. The tributaries got some splendid rocks of ore to-day from the back of the 77, on the St. Vincent vein.

BILLINGS.—F. Evans: No particular change has taken place in the engine-shaft since last report, the lode is 2 ft. wide, but without any lead. The 80 west is letting out more water, and the lode produces excellent stones of lead, with a promising appearance. The 70 west also produces a little ore, but not to value. The stopes in the roof of this level will produce 12 cwt. per fathom. No change in the 70 east. Our last sale was 44 tons, at 18 l. 18s. 6d., and 6 tons at 16 l.

BOTTLE HILL.—J. Eddy, Jan. 4: Williams's shaft is now cased and divided down to the 34. I hope to commence drawing stuff from this part of the mine to-morrow. Nothing new in the western part of the mine. I expected to have sent off samples for ore parcel of tin about this time, but find the western part of the mine to be very foul with both mudi and copper, consequently it takes a longer time to calculate than we expected; there shall be no time lost in preparing it for sampling.

BRONFLOYD UNITED.—T. Kemp, Jan. 3: Settings for January: The cross-cut west of winze at the 52, to cut through the south part of the lode, to two men, at 8 l. per fathom; the lode is producing stones of lead, but nothing to value. The stopes above the back of this level are not yet set, the men being engaged in lengthening the still westward, which work will take them a few days to complete. The lode in these stopes is still without change, producing 3 cwt. of ore per fm. The stopes in bottom of the 40 is set to six men, at 6 l. per fm. for the month; the lode here produces 30 cwt. per fathom. The men in the new shaft are making fair progress.

BRYNFORD HALL.—T. Pierce, Jan. 3: Simon's Shaft: The 114 yard level, west from shaft, continues hard and poor for ore. The vein in the forebore is about 4 inches wide, full of hard spar, mixed with spots of ore, but not sufficient to value.—The 94 yard level: The vein in this pitch is small, hard, and poor. I shall shift the men from this level to-morrow, and shall commence to drive eastward in the 114 yard level, on the new vein; the appearance of the ground here is much more promising than it is in the 94 yard level, and more lead is to be seen.—Ac-r-for Vein: We have cut an east and west vein cutting across the Ac-r-for Vein, which makes the ground much more promising in its appearance. In the last few days we have had very nice lumps of ore in the new discovery, which weighed 30 lbs. each; this vein is all unbroken ground for a very long distance from the discovery which has been made, and we can fully expect to meet with good quantities of ore.—Grainger's: The 86 yard level, in the back, is yielding a little ore daily, but not sufficient to value. The vein is strong, and



complete the sinking of the engine-shaft to the 25 will, probably, require about ten days after the engine has been put to work; and as the ore ground driven over in the has not been touched below that level, the mine will be raising ore almost at once.

**NEW TRELAUGH.—**E. H. Dingle, Jan. 4: We have holed the air-shaft through on the adit to the surface, and hope to complete the same in a day or two, when we intend to drive west on the course of the lode by a full pair of men, so as to get it communicated with the engine-shaft at the earliest possible date, which will be about five days from surface. We intend to commence cutting down trial-shaft to its proper

NEW TRELEIGH.—Samuel Michell, Jan. 4: There is but little alteration in the west for the week. The 70 end, west of the cross-course, is a little improved in the last day or two; there is a leader of ore forming on the south side of the lode, and looking kindly to improve further; the end is discharging a large quantity of water, which is deemed a tolerably good sign. The lode in the 60, driving west of the cross-course, is



3 1/2 ft. wide, of a good appearance, worth from 15l. to 18l. per fathom. No. 1 rise, in back of this level, is a good-looking lode, worth 18l. per fathom; No. 2 rise, in back of the same level is worth 7l. per fathom. The winze sinking below the 40, east of the new shaft, a few fathoms in advance of the 60, is looking better as it goes down, the ore being much of the same nature as the rise below. The 40, west of the before-named shaft, is producing a little ore and a good deal of muddle—a kindly lode. We intend sampling on Tuesday next.

**NORTH CHIVERTON.**—W. Hancock, Jan. 2: The ground in the new engine-shaft, sinking below the 48, is of a very favourable description; the same remark will apply to the ground in the cross-cut, driving south towards No. 2 lode.—Old Sump-Shaft: The lode in the 60 west, for the part carried, will produce 1 ton of blende per fathom, with rich stones of copper and lead. In the same level east we are carrying about 3 ft. of the south part of the lode, which produces blende and lead, but not enough at present to put much value on, though a fine-looking lode, and no doubt, will shortly improve. In the 60 east the lode is about 2 ft. wide, producing at times a little lead and blende. No. 1 stop, in the back of this level, is producing 3 tons of blende per fathom, with good stones of lead. No. 2 stop will produce 2 1/2 tons, with good stones of lead also. The ground in these stops during the past week has been a little stiffer. We have set another stop in the back of this level west, to two men, which is producing 1 ton of good quality blende per fathom—good stuff. We are still stripping down the north part of the lode in the 50, west of Mr. Shaw's shaft, which produces at times good lead and blende, and has every appearance to improve as we go down. The ground in the cross-cut, in this level, driving towards the new engine-shaft, is so far very favourable.

**NORTH DOWNS.**—F. Pryor, J. Grenfell, Jan. 2: The sinking of King's and Bennett's shafts is going on satisfactorily, and the same remarks apply to the 50 cross-cut south. In the 60, east of the cross-cut, on new Brian lode, the lode is very regular, and produces occasional stones of ore, but it is small and unproductive. We have cut through the western part of the cross-course, and have discovered the counter part of the above lode; it is heavy north about 6 ft. by the side of the cross-course, but we are satisfied it is the same lode, from its having the same bearing and underlie. We have suspended the rise in the back of the 50, on the south lode, and have put the men to stop in the end of the said rise, where the lode is worth 5l. per fathom. The pitch to the east of this rise is still looking pretty well.

**NORTH MINERA.**—T. P. Thomas, Jan. 2: The accounts for the last six months, and a detailed report of the workings having been printed and forwarded to you, it leaves very little for me to report upon. At your last meeting good courses of ore had been discovered in the 35 yard level and in the back of the 50 yard level. The former did not continue its productiveness, and the driving east became disordered and poor, and the western end has been producing about 1/2 ton of ore per fathom, up to the last day or two, when it became poor, and not worth following. The ore ground in back of the 50 yard level has been more continuous; for 10 fms. east there has been a similar course of ore, averaging about 1 ton per fathom, and for 3 fathoms west there has been a similar course of ore, and in the rise in the back there is a good course of ore still standing. In this part of the mine we expect to be able to break a considerable quantity of ore, which we shall be able to stop away at a fair profit. From the appearance of the lode in the 50 yard level, east of engine-shaft, and from the dip of the beds in the back, we have resumed the driving, and from its kindly character and improvement as we go east I expect soon to have a course of ore here. Although I cannot hold out any great prospect of anything of a permanent or great value at this depth, it being in the secondary formation, I am much pleased to see the lode so well defined, and with such good walls as it has. In sinking below the 50 we have gone through different beds and stratifications—sand, basalt, limestone, chert, flint, and shale, and in the 80 yard level the ground is disordered, and what we have seen has been unproductive. Upon getting our shafts down to the 100 yard level we have come into the dark limestone, similar to that in the great Minera Mine, and I hope and trust we are now in the primary and lasting formation. We are now driving a cross-cut in this level, and in about two months we expect to intersect the lode; if it should hold down to this stratification, and I believe it does, I think it will be found productive; and if it should only produce stones of ore, I feel confident it will be the indication of a rich mine at a little greater depth. It being so near the top of the limestone, we can hardly expect a great course of ore, but I do expect to find that which will lead us to one. The mine is still quite dry, which is a good proof we have not hit a water-bearing lode. I consider the prospects of the mine better than they ever were, and with a little patience and perseverance I trust the shareholders will be rewarded for their outlay.

**NORTH MINERA.**—Jan. 3: There is nothing fresh in the mine this week. The cross-cut driving north at the 50 is still in the same ground, and is hard for progress. The 25, driving east, is producing saving work, and the lode is carrying a good wall. The stop in the back of the 25 will produce 1 ton of lead ore per fathom. I have stopped the men stopping in the back of the 35 yard level, and intend putting them to stop in the 50 fathom level.

**NORTH ROSKILL.**—J. Vivian and Son, R. Angove, F. Hoeking, Jan. 4: Western District: We are clearing the 216 ft. level, west of the Doctor's shaft, as quickly as possible, and hope to see the end on Saturday next. In the 205 ft. level west the lode is large, but does not contain so much copper as it has done. We are making good progress in sinking Prince William Henry shaft under the 194, which, when communicated to the 205, will enable us to push on the latter level more rapidly, by which there are good chances of making valuable discoveries. In the winze sinking below the 194, west of Pearce's shaft, there is a large blue-looking lode, with patches of rich yellow copper ore seen about it, and the lode is improving as we go down. In the 140 ft. level, east of engine-shaft, the lode is worth about 20l. per fathom. The lode in the 174 ft. level, west of Pearce's shaft, is small and unproductive. There is no alteration of importance in the copper pitches. The tin stops are improving a little in the quality of the tinstone.—Wheeler Croft or Eastern District: In the 160 ft. level, east of engine-shaft cross-cut, on the north lode, the heat appears to be increasing as we approach the cross-course, but otherwise there is no alteration to remark on. In the 150 ft. level, west of James's winze, on the north lode, we have a very large lode, consisting of a little blende and a large quantity of lead. In the 140 ft. level, east of engine-shaft cross-cut, the lode is 2 ft. wide, yielding a little copper and tin. In the 140 ft. cross-cut, south from the north lode, there is nothing to remark on. The tin stops are producing tin of the same quality as usual.

**NORTH SHEPHERDS.**—Henry Bennett, Jan. 3: The engine-shaft is sunk to the 50; the lode is small and poor. The 40 end, west of engine-shaft, is a little improved, and producing a little lead; the lode is 2 ft. wide, and we look for a further improvement shortly. In the 20 end, west of Ryer's, the lode is 2 ft. wide, containing stones of lead, but not enough to sink; the lode is 2 ft. wide, and we look for a further improvement. The lode is 1 ft. wide, and letting out plenty of water, and I am inclined to believe we shall see a change in this end shortly. The engine is working five strokes per minute to keep the mine drained.

**NORTH WHEAL ROBERT.**—Wm. Godden, Jan. 4: West of Murchinson's Shaft: The ground in the cross-cut south at the 62 is not so easy for progress, with water flowing freely from the end.—West of Trial Shaft: Waymouth's stop, in the back of the 90, on No. 2 south lode, is worth 1 ton of copper ore per fathom. The ground in Mayne's cross-cut north at the 90 is not so favourable for progress. The stopes throughout the mine are yielding their usual quantities of tin.

**OKEL TOR.**—W. Metherell, Jan. 3: The 65, driving east, is improved, and will yield 6 tons of copper ore per fathom. The various other operations are much as usual, and progressing very satisfactorily.

**OLD GUNNILLAKE.**—W. G. Gard, J. Phillips, Jan. 4: At Michael's engine-shaft the water is in fork 7 fms. under the 11. We have again been much retarded by very severe stones of iron, or should have made much greater progress. However, at present rate of working, we shall have the plungers fixed by Monday or Tuesday next. At Parker's shaft the lode is 3 ft. wide, and composed of gossan. The 31 west is now passing through a somewhat disturbed channel of ground, the same as before met with in the 21 ft. level above. In the 20 we are for the present driving by the side of the lode, and since yesterday have met with a very important improvement, the end being coated with black oxide and green carbonate of copper, which is issuing from the lode. We purpose driving 5 or 6 feet further before cutting through the lode, where we hope to be able to reap a valuable improvement.

**PEON-AN-LEA UNITED.**—W. Tregay, J. Thomas, Dec. 30: Sump: The water is in fork to the 20, and if the rain now threatening do not come on very heavily we expect to fork to the bottom early in the coming week. In the 120 east rise the lode is very large, and produces good stones of tin. In the 120 east and Skimmer's the lode is worth 6l. per fathom. The 120 west end is not yet through the cross-course. The lode in the 110 east is worth 7l. per fathom. In the 100 east the lode is worth 8l. per fathom. In the 100 east rise the lode is worth 10l. per fathom. In the 100 north cross-cut nothing has been intersected during the week. The lode in the 80 east is worth 8l. per fathom.—Cobbler's: The lode in the 110 east is worth 10l. per fathom. The lode in the 110 west is worth 5l. per fathom. In the 90 east the lode is still divided into two branches, producing a little tin. These branches are coming together, and we expect improvement. In the 90 east winze the lode is worth 14l. per fathom. In the 68 east winze the lode is worth 12l. per fathom.—Trevena's: In the 47 east winze the lode is worth 12l. per fathom.—Cardozo's: The lode in the bottom of this shaft is worth 30l. per fathom. The amount of work accomplished this week is much less than is usually accomplished, having been interfered with by the Christmas holidays.

**PENTRE LYGAN.**—F. Evans: The lode sinking below the 40 ft. level is very promising, but as yet without much value; we look for a change soon for the better.

**PRINCE OF WALES.**—W. Gifford, Jan. 2: We have had a breaker with our flat-rods, which have caused a delay in working the water, but we hope to get in the end at the 45 to work some time to-night.

**PROSPER UNITED.**—J. Nicholls, W. H. Martin, W. Millett, Jan. 4: The lode in the 70, east of Hoeking's, has improved for tin, now worth 9l. per fathom. The lode in the 90, east of Hand's, is 2 feet wide, producing stones of tin and copper ore. The 90 west is unproductive. The 80, west of Hand's, is yielding 2 tons of copper ore per fathom, and 4l. worth of tin per fathom. There is no change to remark on in any other part of the mine since the last report.

**RESTRIGIAN.**—T. Parkyn, Jan. 4: We have intersected the lode in the deep adit level, and find it 4 feet wide, containing grey, black, and yellow copper ore, and some good stones of iron ore; there is a large stream of water coming out of the lode, and it is looking most promising, and has improved this week. Further particulars in my next report.

**ROSECLIFF AND TOLCARNE.**—R. Pryor, James Phillips, Jan. 3: The ground at Lindo's engine-shaft has within the last day or two become a little more favourable for sinking, which is being pushed on with all possible speed to reach the 30, and the men are making good progress. Our engine continues to work well, and all other works going on favourably.

**ROSKILL-NOWETH.**—J. Vivian and Son, Jan. 4: In sinking Park-an-Bowen shaft under the 50 ft. level we have easier ground, and have now only about 4 fms. more to sink to communicate with the 70 ft. level; when this is done we shall be able to explore some promising ground which the shaft passed through by driving an intermediate level east and west into it. In the 30 ft. level, west of Park-an-Bowen shaft, we continue to open through a lode about 2 ft. wide, and producing yellow copper ore, worth about 5l. per fathom.

**SILVER VEIN.**—J. Seccombe, Jan. 2: I am in receipt of a letter from Capt. James, and shall meet him on the mine on Thursday next; on that day I shall be enabled to say when the engine shall start after the various causes of delay.

**SORTRIDGE CONSOLS.**—R. Jackson, Jan. 4: The sinking of Hiltchins's engine-shaft below the 110 is progressing satisfactorily. In the 110 west the lode is 2 ft. wide, composed of spar, prlan, muddle, and good stones of ore. In the 110 east the men are engaged in clearing and securing the level. In Rowe's rise, in back of the 110, the lode is 3 ft. wide, worth 1/2 ton of ore per fathom. In James's rise, in back of the 62, no lode has been taken down this week. In Stancombe's winze, sinking below the 10, west of White's rise, the lode is 3 ft. wide, worth 1/2 ton of good ore per fathom. There is no change to notice in any other part of the mine.

**SOUTH CARADON WHEAL HOOPER.**—W. C. Cook, Dec. 30: We are progressing favourably with the work in the flat-rods shaft, and hope to commence sinking below the 54 in a few days; this will be done by nine men, whilst the remaining three shaftmen and the endmen will be engaged putting down main rods, putting in skip-rod, &c.

**SOUTH DABEN.**—J. Bondy, Dec. 30: Setting Report: The 60 to drive west, by four men, at 8l. per fathom; the lode in the 50 is 2 1/2 feet wide, worth for lead and copper ore 17l. per fathom, and promising an improvement. To stop the back over the 60 west, by four men, at 70s. per fathom; the lode is 2 feet wide, worth for lead and copper ore 12l. per fathom. The 60 to drive west, by six men, at 11l. per fathom; the lode at this point has improved since my last report; the lode in the present end is 3 1/2 feet wide, worth for lead and copper ore 25l. per fathom, with every appearance of

a further improvement. To stop the back over the 80, west from the winze, by six men, at 75s. per fathom; the lode is 2 1/2 feet wide, worth for lead and copper ore 16l. per fathom. To stop the back over the 80 west, east of the winze, by six men, at 75s. per fathom; the lode is 3 feet wide, worth for copper and lead ore 14l. per fathom. The 40 to drive west, by four men, at 8l. per fathom; the lode is 2 feet wide, worth for lead and copper ore 32l. per fathom, and from its appearance I expect early improvement. To stop the back over the 40 west, from the winze, by six men, at 75s. per fathom; the lode is 3 feet wide, worth for lead 20l. per fathom. The 30 to drive west, by four men, at 8l. 10s. per fathom; the lode in the end is 2 1/2 feet wide, worth for mineral 12l. per fathom. The ground at this point is highly mineralised, altogether of a favourable character for lead. To stop the back over the 30 west, by four men, at 70s. per fathom; the lode is 2 feet wide, worth for copper and lead ore 12l. per fathom. The 20 to drive west, by four men, at 8l. per fathom; the lode is 2 feet wide, producing a little lead and copper ore—saving work: from the appearance of the lode at this point we may fairly expect an improvement soon. The 30 cross-cut to drive north, by two men, at 6l. per fathom. The shallow level to drive east, by two men, at 5l. 10s. per fathom; the lode here is 15 inches wide, containing spots of copper, sulphur, &c., but not enough to value. We are getting on well with our dressing for the next sampling. All the machinery is working well, and in good condition.

**SOUTH EXMOUTH.**—J. F. Nichols, George Mauder, Jan. 3: The west lode, in the 90 north, is 18 inches wide, composed of flocks, white iron, and quartz, embedded in soft conical kila. The lode in the 90 and south is 4 feet wide, chiefly white iron and quartz, yielding occasional stones of lead. The lode in the 75 north is 3 feet wide, consisting of white iron and quartz, interspersed with muddle, blende, and lead, but not enough of the latter to value, but, however, the very kindly appearance of the lode leads us to expect a good improvement here in the course of a few days. The lode in the 60 north is 5 feet wide, consisting of barytes, quartz, white iron, and muddle—a kindly lode.

**SOUTH HEODSFORD.**—Wm. Goldworthy, Jan. 3: Since the engine went to work we have succeeded in forcing the water, and put the new pump to heat water up to the 24, and shall commence to take up the old pitwork to-day, and get the new lift to have the adit as quickly as possible, as we have no time to lose to keep the water under, which has greatly increased by the rains and drainage of the mine.

**SOUTH WHEAL FRANCES.**—Wm. Pascoe, J. Prisk, Jan. 1: Pascoe's shaft is sunk 5 1/2 fms. below the 144, and is being sunk by six men, at 20l. per fathom. We calculate the shaft will overtake the lode before the next meeting of adventurers. The 144 is driven 18 fms. west of Pascoe's shaft; the lode is small and unproductive. The 134 is driven 74 fms. west of Pascoe's shaft; the lode is 1 1/2 ft. wide, worth 12l. per fathom. In this drive (14 fathoms) the lode has varied from 1 to 2 ft. wide, and worth from 4l. to 7l. 10s. per fathom. In the present end it is 15 in. wide, worth 6l. per fathom; for tin; driving by four men, at 21. 15s. per fathom. The 124 is driven 14 fms. west of the cross-course; the lode for the whole distance has produced tin for the stamps, and during a part of the two months worth 6l. 10s. per fathom. At present the lode is 1 ft. wide, worth 3l. per fathom; driving by two men and two boys, at 3l. We are stopping the back of this level at 35s. per fathom, in which the lode is 1 1/2 ft. wide, worth 5l. 10s. per fathom. The 34 is driven 3 fms. east of the tribute pitch, 30 fms. east of Richard's shaft; the lode is 1 1/2 ft. wide, worth 12l. per fathom, for copper ore; driving by four men, at 7l. 10s. per fathom, and 4s. in 12 tribute. In the tribute pitch, 5 fms. over the lode, the lode is worth 10l. per fathom, and working by four men, at 4s. in 12. New South Lode: The 94 is driven 25 fms. east of cross-cut; the lode is 10 in. wide, producing a little native copper, but not to value. In the tribute department no change worth of remark since our last general meeting. Although our accounts show a balance of 65l. 11s. 11d. against the mine for the past two months, we beg to state that this would not have been the case but for the damage done to our launders during the heavy gales early in December; we were occupied fully three weeks in accomplishing the necessary repairs, and during that time our stamps were idle and the dressing suspended.

**SOUTH WHEAL GRENVILLE.**—G. R. Odgers, Wm. Bennett, Dec. 30: Setting Report: The engine-shaft to sink below the adit by nine men, at 20l. per fathom; the ground is elvan, with branches of spar and prlan, containing a little tin, and spots of ore dipping towards the lode. The adit west to four men, at 5l. per fathom; the lode is 3 ft. wide, of spar, prlan, and a little gossan, presenting a very kindly appearance.

**SOUTH WHEAL TOLGUS.**—Jan. 3: Yours: The lode in Mitchell's end, in the 130, is 18 inches wide, composed of flocks, white iron, and quartz, embedded in soft conical kila. The lode in the 130 and south is 4 feet wide, chiefly white iron and quartz, yielding occasional stones of lead. The lode in the 75 north is 3 feet wide, consisting of white iron and quartz, interspersed with muddle, blende, and lead, but not enough of the latter to value, but, however, the very kindly appearance of the lode leads us to expect a good improvement here in the course of a few days. The lode in the 60 north is 5 feet wide, consisting of barytes, quartz, white iron, and muddle—a kindly lode. The lode in the 150 west is 15 in. wide, composed of spar, muddle, and good stones of ore. The ground in the 150 cross-cut south is rather hard. In the 140 west the lode is 18 in. wide, not looking so well for ore, producing occasional stones of ore. 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directions, as well as from actual returns at a shallower level, we may fairly expect to open up a productive mine.

**WHEAL MARY HUTCHINGS.**—Wm. Edwards, Jan. 4: The lode in the deep adit end, going east on the counter, still continues of the same highly encouraging character, yielding some splendid work for tin, and is being driven at 30s. per fathom. In the deep adit end, going west Derrick shaft, we have intersected the lode beyond the slide, which is about 1 ft. wide, composed of peach, friable spar, muddle, with rich spots of copper ore, and showing an improvement as we advance. We are raising for a shaft on the copper lode, where the ground is most favourable, and hope to haul through in the course of a few days; this will thoroughly ventilate the eastern part of the mine, and enable us to push on our operations with greater vigour. They are now employed in doing up to push on the erection of whelm, &c. We have commenced dressing the tinstuff, which is turning out most satisfactorily.

**WHEAL NORRIS.**—J. Andrews, Dec. 30: The run in the adit is secured, and the shaftmen have this morning resumed sinking again. I am pleased to inform you the lode in the 57 and has much improved, which is now 2½ ft. wide, worth full 20l. per fathom, a splendid looking lode. The lode in the slopes in the back of the 57 is from 18 inches to 20 inches wide, producing moderate stamping work. The new lode in the 45 ft. level end, driving east of cross-cut, is 1 ft. wide, composed principally of quartz, peach, prlan, and door-spar.

**WHEAL POLLARD.**—W. C. Cook, Jan. 3: We are making fair progress in driving both east and west in the 50. The former is being driven at 7l. 10s. per fathom, and the latter at 4l. 10s. per fathom. The lode is without any change to notice. We have six men in each end.

**WHEAL SPARNON.**—E. Chagwin, Dec. 30: Sump: The sumpmen have made good progress in cutting the counter's engine-shaft; lode 7 ft. wide, yielding stones of yellow copper ore, but not enough to value. The men have completed bedding down the lobby shaft as far as the 50; we expect to get ready for driving by the middle of next week. The lode in the 20 rise is still letting down much water, which we believe is from a large lode above us. In the 20 north cross-cut nothing intersected for the week. A Belfry's shaft nothing of importance has been seen for the week.

**WHEAL TAANACK.**—Wm. Bawden, Jan. 3: In the 50 ft. level, the east end of engine shaft, the lode is 9 inches wide, producing good work for tin, and from the appearance of the lode I think we shall shortly meet with the run of ore ground that was so productive in the 40 ft. level. In the 50 ft. level end, west of engine-shaft, the lode is 3 ft. wide, producing spots of copper ore; this point may be looked upon as an important one. The slopes in the back of the 40 are producing ½ ton of copper ore per fathom.

**WHEAL UNITY CONSOLS.**—W. H. Reynolds, Jan. 3: The cross-cut north, in the 40, is driven about 5 fathoms from the shaft, and we expect to cut a lode in driving 2 or 3 fathoms further.

**WHEAL UNION.**—T. Glanville, Jan. 3: In the 40, driving west of the old engine-shaft, the south lode is yielding 1½ ton of copper ore per fathom. In the winze sinking below the 40, the lode is yielding 1 ton of ore per fathom. In the flat-rod shaft, sinking below the 100, the lode is 3 ft. wide, yielding stones of ore.

### MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

**WHEAL GRENVILLE.**—Attention was directed in last week's Journal, by a Correspondent in the vicinity, to the desirability of giving increased consideration both to the general management and the system of working pursued at this mine. Much dissatisfaction has, no doubt, been created among the shareholders by the frequent fluctuations in the price of shares, and their occasionally great decline in value, more especially as various causes have been referred to as producing these changes. All parties agree that the mine is a good one, and if this be admitted where, it has been asked, can the fault lie, unless in the management or in the working arrangements? This question we believe to explain the origin of the remarks of our Correspondent—to the correctness of which objection is now taken, and a wrong meaning attributed. The statement—"I saw it stated in the Journal that the mine is honestly worked, and that Capt. Charles would not be better, but we do not know of any difference in that," by an ingenious conversion of the affirmative to the negative, held—"we fear through evil-disposed advisers—to be equivalent to a charge of dishonesty against the captain, although no such charge was made or intended by the writer, as is evident from the distinct assertion—"I have nothing to say against Captain George, but the general management of the mine and count-house arrangements should be well looked into"—made in the latter part of the letter. Indeed, it is unlikely that any such charge as that complained of would be made against the captain—Captain George R. Odgers—who is well known to be an energetic miner, with sound technical and considerable experience; but respecting the system of management, he may not be entirely responsible for it, or he may be placed in such a position that it may be compulsory on his part to adopt it. The letter of "A Miner" should be accepted as referring to the system alone; and as in the letter he refers to *honestly* as employed as equivalent to *properly*, and in no stronger sense, it should be so interpreted in his letter. It should be particularly understood that "A Miner's" communication was purely a practical or technical one, and had no possible connection, or intended in any way to influence market operations. The letter had no reference to either "bulls" or "bears"—benefit to the property being the only object in view. Wheal Grenville has been often enough, both here and in the county, alluded to as a "Market Mine"—one in which extensive dealings take place at fluctuating prices, and which prices are mainly the cause and consequence of such business transactions, without the least connection with the value of the property, or at times even the holding of shares;—and if by a change of working it can be removed from that category, and at once brought into a dividend state, we consider that the committee of management, the captain, and the shareholders would be indebted to the miner who suggested the alteration, and should rather tender him their thanks than condemn his interference.

**GREAT WHEAL VOR UNITED.**—The important improvements which have opened out in the bottom level (194), west of Metal, and also in the bottom of Irey's shaft, give indication of a large measure of renewed success to these mines. The last reports are more favourable than any we have heard for some time; they merit the attention of all who are interested in the permanent success of this mine.

**CARNYORTH MINE.**—The 124 ft. level, west of engine-shaft, is much improved since the quarterly report was issued, and appears to be opening a new run of tin ground, as the lode over it (the 112) was unproductive; the lode now in the 124 ft. level end is worth from 15l. to 18l. per fathom; the 124 ft. level east is improved.

**BRYNAIL MINE.**—The unprecedented course taken by the management of this mine, in buying it in, at the public sale on December 7, deserves, I think, some notice in the Journal. The secretary has stated that he had authority to buy in the mine, at a limit of 400l. Now, it will be readily conceded that a reserved price is necessary, in order to avoid the risk of property sold by public auction, being sacrificed; but when a price is fixed, the result of which may render the sale abortive, the right to fix that price will be disputed. Prior to the sale in question, Captain Roach, the agent, was requested to prepare a valuation of the mine and machinery. This valuation, which is a most elaborate one, will in no way explain the action of the committee in buying in the mine at 310l., much less, therefore, in having fixed the reserved price at 400l. Under these circumstances I would urge on the shareholders to demand of the committee whether they are collectively responsible for having bought in the mine, and thereby violated the spirit and letter of the resolutions passed at the different meetings of the shareholders.—*INTERVIEWER.*

**ROARING WATER.**—A magnificent water-wheel was set to work at this mine on Dec. 27, and by further report it works well, and with the greatest ease; the water-power is very strong, and the present erections will carry down the shafts 150 fms. The mine will be in for work about Wednesday next, when both the shafts will be set to sink to the 40, where the north and south lodes are expected to form a junction.

**CARN BREA MINES.**—These celebrated mines, for many years so rich, bid fair to return to their usual prosperous state. During the last three months discoveries of importance have been made on the High Burrow, now so productive in Tin-croft. The eastern shaft, sinking below the 187 fathom level, is worth from 70l. to 80l. per fathom for tin, and can be sunk 2½ fathoms per month. The 187 fms. is worth for copper 60l. per fathom, whilst a mine coming down a few fathoms ahead of this end is worth 50l. per fathom. There is also a rich lode in the bottom level, in the western part of the workings, approaching Tin-croft; whilst two levels that are being driven east in Tin-croft, and now within a very few fathoms of the Carn Brea boundary, are very productive both for copper and tin; altogether it would seem that the prospects are of the very best character, and that Carn Brea is now entering on a new era of existence. On a capital of 15,000l. laid out, dividends have been already paid of more than 200,000l.

**NEW STRONG LODE DISCOVERY.**—About six miles west of Dolgellau is the sett where this discovery came to light. The lode where they first found it is from 2½ to 3 feet wide, and thickly bespread throughout with rich silver-lead ore, &c. The mine is situated in the Cambrian or the Bannoch Channel. As yet little has been done to prove its strength and quality at a more certain depth.

**EAST LAXEY** bids fair to be the next prize in the Isle of Man. It will be seen by the report that the lode in the deep adit, 15 fms. from the engine-shaft, is 5 ft. wide, chiefly gossan, but mixed with some of the richest copper ore and black jack. Capt. Rowe in a private letter says—"We have in the deep adit, driving north, a lode that to my mind is the certain prelude to a great and good mine below. We have copper in the richest form, in as fine a gossan as was ever seen in any mine in Devon or Cornwall; and Capt. W. H. Rowe says—"The lode in the adit end, north of engine-shaft, is very promising." These shares should be bought.

**GREAT LAXEY.**—The last reports speak of the 165 north as having passed through the slide, and being worth 160l. per fathom. These well acquainted with the mine fully understand the vast importance of this. The 165 is the level of the Pioner level of the mine; it has already passed through an immense tract of rich ore ground, in many places valued at 200l. per fathom. This looks well for the levels above and below. Darnell's continues to improve.

**NORTH POOL.**—The report this week states that Middle, or Evans's lode, continues to yield 2 tons of ore per fathom. That the shaft sinking on Ballarat lode had formed a junction with another lode, yielding large rocks of copper ore. The character of the discovery will be determined in a few days.

**CENTRAL SAILBEACH.**—Capt. Kitto writes—"I was there yesterday, and found No. 1 lode looking much better than I expected to see it at its present depth." He also speaks of Penery Mine, in the immediate neighbourhood, as "coming out splendidly." Central Sailbeach should not be lost sight of. Capt. Kitto has some staunch supporters in the Isle of Man, as next to Great Laxey, this is the most popular mine there.

**TOLVADEN.**—This mine, which is rapidly improving, and likely to become one of importance, has sampled, and will sell this time, 56 tons of rich copper ore, independent of the tin. The bearings of the lodes, with the favourable character of the rock, or channel of ground they are imbedded in, in the 83, 93, and the 103, together with the general improved prospects of the mine, suggest the propriety of the shareholders to accord with one voice their usual motto, "One and All," to rally around the standard of this valuable property, and at the meeting about to be held to unanimously agree to the erection of another engine of a sufficient power, in order to carry out the operations of the mine more vigorously; this course will bring fresh blood in, bestow new life and give vitality to the concern, and shares would be marketable for as many pounds as they are now selling at shillings.

**WORTHY IMITATION.**—Mr. Markham Browne, of London, sent 16l. to be distributed at the Cornorres Mines, Vale of Ovoca, Ireland; and on Saturday last Mrs. Bishop, the wife of the manager, gave bread, tea, sugar, calico, and linsey to the widows and orphans of the miners, irrespective of religious opinions.

**MINE ACCIDENT.**—At Cape Cornwall (St. Just), John Bone, aged 57, was killed from a fall in the shaft.

An interesting experiment was tried on Saturday at the Dijon Railway terminus with a system of electric bells applied to a railway train of passenger carriages. It completely succeeded. A communication between each of the carriages and the compartment occupied by the head conductor of the train was instantly effected by merely pressing a button attached to one of the partitions of the carriage.

## The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JAN. 5, 1866.

COPPER.				BRASS.			
Best selected...	£	s.	d.	Per lb.	Per Ton.	Per lb.	Per Ton.
Tough cake & tile	108	0	0	113½d.	—	113½d.	—
Burra Burra	110	0	0	113½d.	—	113½d.	—
Copper wire	110	0	0	113½d.	—	113½d.	—
ditto tubes	0	13½	—	—	—	—	—
Sheeting & bolting	111	0	0	—	—	—	—
Bottoms	116	0	0	—	—	—	—
Old (Exchange)	97	0	0	—	—	—	—
IRON.				STEEL.			
Best selected...	£	s.	d.	Per lb.	Per Ton.	Per lb.	Per Ton.
Swedish, in kegs (rolled)	13	0	0	10-11	0 0	10-11	0 0
" (hammered)	15	0	0	10-16	0 0	10-16	0 0
Swedish, in kegs (rolled)	16	0	0	10-16	10 0	10-16	10 0
English, Spring	18	0	0	10-23	0 0	10-23	0 0
QUICKSILVER (per bottle)	8	0	0	nom.	—	—	—
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drive the 36 ft. level west, and a new shaft west of present working, and deepen the mine. Capt. Garland's firm belief is that capitalists will be well remunerated for the required outlay. Capt. Northey, taking the lode and congenial stratum in which it is embedded, together with the excellent advantages of working with water power, has every reason to believe that, if properly developed, with a fair amount of capital properly applied, it will become a great and lasting lead mine; and Capt. Williams has a strong opinion that profitable results will follow a spirited trial.

The WHITE FIRE-BRICK, SAND, AND CRUCIBLE CLAY COMPANY has been incorporated, with a capital of 18,000*l.*, in shares of 3*l.* each, for the purpose of leasing and purchasing the present proprietors' interest in works of the nature described in the title, situated on the western end of the Halkin Mountain, and about one mile from Nannerch Railway Station, on the Mold and Denbigh Railway. The prospectus states that "at present there is a clear profit of 5*s.* per ton upon all clay and sand sold off the concern, upon an outlay of 6*s.* per ton; but when suitable machinery is erected for the more speedy and economical working of the clays, it may be confidently expected that the profits on the manufactured clay will be considerably increased." The property is 21 acres in extent, and has been favourably reported upon by Mr. Walter Eddy and Captain John Lloyd, who concur in the opinion that it is one that cannot fail to return large profits under proper management. It is estimated that the cost of machinery will not exceed 4800*l.*, and no bonus is to be paid by the company to the promoters. The prospectus will be found in another column.

At Redruth Ticking, on Thursday, 2607 tons of ore were sold, realising 15,239*l.* 17*s.* The particulars of the sale were:—Average standard, 129*l.* 13*s.*; average produce, 6*l.*; average price per ton, 5*l.* 17*s.*; quantity of fine copper, 172 tons 16 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Dec. 7.	3326	129 4 0	6 4	5 7 6	16 <i>s.</i> 8 <i>d.</i>	239 6 0
" 14.	2003	131 9 0	6 4	5 6 6	17 6	87 11 0
" 21.	4442	134 8 0	6 4	5 6 6	17 8	88 6 0
" 28.	3089	132 8 0	6 4	5 6 6	17 0	84 19 0
Jan. 4.	2607	129 13 0	6 4	5 7 6	17 7 4	88 2 6

Compared with last week's sale, the advance has been in the standard 2*l.* 5*s.*, and in the price per ton of ore about 3*s.* Compared with the corresponding sale of last month, the advance has been in the standard 4*l.* 10*s.*, and in the price per ton of ore about 6*s.*

At the Foxdale Mines (Isle of Man) Company quarterly meeting, on Dec. 29, the directors declared a dividend of 10*s.* per share.

At East Wheal Lovell meeting, on Dec. 27, the accounts for the four months ending Aug. showed a credit balance of 1382*l.* 19*s.* 5*d.*. The profit on the working was 979*l.* 13*s.* 5*d.*. A dividend of 953*l.* (10*s.* per share) was declared; 259*l.* 14*s.* 2*d.* was appropriated to the payment of September cost; and 14*l.* 9*s.* 4*d.* carried to credit of next account. Capt. Richard Quantrell reported that the mine is looking more permanent, and altogether in a better position, than at the last meeting; and if the lodes should continue as they are at present their profits at the next meeting will be quite as much as the cost will be less. Nearly 72 tons of tin, realising about 4000*l.*, have been sold since April.

At North Miners general meeting, on Wednesday (Mr. T. P. Thomas in the chair), the accounts showed a balance of assets over liabilities of 3164*l.* 2*s.* 9*d.* (this includes the value of ore broken and plant on the mine). The manager's report appears in another column.

At South Wheal Frances meeting, on Monday, the accounts showed a credit balance of 578*l.* 4*s.* 3*d.*. Messrs. Smith and Roberts, the solicitors of the mine, having attended the meeting, in consequence of the circular sent to the shareholders by Mr. Donithone, to explain their conduct in the law-suit between this and West Bassett Mine, it was proposed by Mr. Heard, seconded by Mr. J. A. Spargo, and resolved:—That this meeting having heard the exhaustive statements made by Messrs. Smith and Roberts, relative to the long-pending litigation between South Frances and West Bassett, is of opinion that the very best thanks of every adventurer in due to those gentlemen, and to their London agent, Mr. R. W. Childs, for the untiring zeal and persevering energy they have shown in the interest of South Frances adventurers, and desires to express its full and continued confidence in them as the legal advisers of the mine. [The agents' report is among the Mining Correspondence.]

At Great East Lovell Mine meeting, on Dec. 27, the accounts for the four months ending October showed a debit balance of 307*l.* 2*s.* 4*d.*. A call of 10*s.* per share was made. Capt. R. Quantrell reported upon the various points of operation.

At the Penhale Wheal Vor Mine meeting, on Tuesday, the accounts showed a debit balance of 1788*l.* 10*s.* 4*d.*. A call of 1*l.* 1*s.* per share was made, and the shares of the company subdivided into 4000 instead of 2000. The salary of the manager, Capt. W. Chappell, was increased to ten guineas per month—his whole time with the exception of two days at South Lovell) to be devoted to Penhale Wheal Vor Mine. Mr. Henry Rogers, of Helston, was appointed the solicitor to the mine; and the following gentlemen re-elected the committee:—Messrs. W. Harvey, F. Hill, B. Hollingsworth, T. Holroyd, W. H. Lanyon, J. Pool, H. Ritchie, and H. A. Sanford.

At Carnoyth quarterly meeting, on Dec. 22, the accounts showed a profit of 10*l.* 6*s.* 10*d.* on the three months' workings, leaving a debit balance of 1417*l.* 9*s.* 11*d.*. The prospects of the mine have improved, and opening out better in the deep levels.

At the Tamar Silver-Lead Mining Company (special) meeting, yesterday (Mr. C. Buris in the chair), it was resolved that the committee should pursue the company's claim against Mr. Williams at the earliest possible moment, and thereupon proceed to distribute the funds in hand amongst the shareholders.

At the South Condor Mine meeting, on Tuesday (Mr. Buckland in the chair), the accounts showed a credit balance of 421*l.* 16*s.* 1*d.*. A call of 1*s.* 6*d.* per share was made. Details in another column.

At New Wheal Seton meeting, on Tuesday, the accounts showed a debit balance of 231*l.* 13*s.* 2*d.*. A call of 2*l.* 10*s.* per share was made. Capt. Charles Thomas and Malachi Bath reported upon the various points of operation.

At the Craddock Moor Mine meeting, held at the pursers' offices, Liskeard, on Thursday, a call of 7*s.* per share was made.

At the Crosier Valley and Port Madoc Freehold Slate Company adjourned meeting, on Wednesday (Sir Edwin Pearson in the chair), the report of the committee of investigation appointed at the annual meeting, held on Nov. 22, was submitted, and also the reply of the directors. A lengthy discussion ensued, which resulted in the adoption of a resolution that the company should be wound-up voluntarily.

At the Central American Mining Company (special) meeting, on Thursday (Dr. Quin in the chair), convened for the purpose of passing a resolution for dissolving the company, with a view to its reconstruction, it was stated that as only about 3000*l.* had been applied for of the 10,000*l.* worth of bonds proposed to be issued, the directors had not felt themselves justified in continuing operations upon such a basis. Mr. J. Taylor explained that the present unpleasant position of affairs had been brought about by the force of the law under which the company was placed. Each shareholder had paid all that he could be asked to pay, and there was no means of levying upon the shareholders any contribution towards the liabilities that have been and still were being incurred. Under those circumstances there was an absolute necessity for prompt action in the dissolution of the present company and its reconstruction. The Chairman mentioned that had bonds of the value of between 6000*l.* and 7000*l.* been applied for, the directors would have probably felt warranted in carrying on the works. After some discussion, a resolution was unanimously passed to the effect that it was desirable the company should be immediately registered under the Companies Act, 1862, and when such registration is complete the directors take immediate steps for winding-up the company under that Act. Mr. R. Taylor said that his brother and himself were well prepared to take their present interest in the new company, and hoped that all the existing shareholders would do likewise. By the reconstitution of the company, however, every shareholder would, of course, have the opportunity of carrying on what interest he pleased, but he trusted they would all share in that property which there seemed reason to hope would be realised. Mr. J. Taylor pointed out that some time since the production of their very rich ore suddenly ceased by reason of a cross-course. Having passed through this rich ore was again found; but, unfortunately, another cross-course was met with. He was confident, however, of anything that had ever happened in mining that the ore would be again found—that was one of the points which the new company would prosecute. A vote of thanks to the Chairman and directors terminated the proceedings.

At the Yorke Peninsula Mining Company (special) meeting, on Wednesday (Mr. A. W. Young in the chair), convened for the purpose of confirming the resolutions which had been passed at the last meeting, requesting the directors to raise a limited amount of funds by the issue of debentures for the purposes of the company, in full development of the property known as the "Kurilla Copper Mine." It was resolved that such resolutions (by which it was contemplated to raise an amount not exceeding 18,750*l.* by the issue of debentures, to be secured on the several properties of the company) be confirmed.

At the Petroleum Company of Western Virginia (Limited) meeting, held to pass a resolution for winding-up the undertaking voluntarily, was, after considerable discussion, adjourned till Jan. 5, with a view to certain arrangements being made with the vendor of the property.

On the Stock Exchange, a moderate amount of business has been transacted in Mining Shares during the week. The following quotations were officially recorded in British Mining Shares:—East Caradon, 8*s.*; East Lovell, 14*s.*; Great Laxey, 20*s.*, 20*s.*; Great Wheal Vor, 33*s.*, 33*s.*, 32*s.*, 33*s.*; West Chiverton, 82; Devon Great Consols, 582*s.*; In Colonial Mining Shares the prices were:—Cape, 12*s.*, 12*s.*; General, 21*s.*, 22*s.*, 21*s.*, 22*s.*; Scottish Australian, 3*s.*; In Foreign Mining Shares the prices were:—St. John del Rey, 48, 49, 48*s.*; Washoe (5*s.* paid), 7*s.*; Frontino and Bolivia, 14*s.*, 14*s.*, 14*s.*; Chontales, 2*s.*, 2*s.*; Fortuna, 3*s.*, 3*s.*

COAL MARKET.—The fresh arrivals this week only number 55 ships. The market has continued a quiet business at last prices for all descriptions of coal, the quantity unsold being reduced to six cargoes. Hetton Wallsend, 19*s.*; South Hetton Wallsend, 19*s.*; Hartlepool Wallsend, 18*s.* 6*d.*; Braddyl's Hetton Wallsend, 17*s.* 9*d.*; Heugh Hall Wallsend, 17*s.* 6*d.*; South Kelloe Wallsend, 17*s.* 6*d.*; Eden Main, 17*s.*: 80 ships at sea.

The Bank of England returns for the week ending on Wednesday evening was again unfavourable, the increase in the private securities being nearly double that of the increase in the private deposits. Under these circumstances the increase of the rate of discount to 8 per cent. must be regarded as a wise and necessary step, and one which will tend to stop that inflation which would otherwise be inevitable. Compared with the return for the previous week, the changes have been:—In the notes issued, a decrease of 310,000*l.*; notes in circulation, increase, 1,314,000*l.*; public deposits, decrease, 964,000*l.*; other deposits, increase, 1,492,000*l.*; Government securities in banking department, decrease, 150*l.*; other securities in banking department,

increase, 2,224,378*l.*; coin and bullion in both departments, decrease, 296,919*l.*; seven day and other bills, increase, 43,108*l.*; the "rest," increase, 42,484*l.*; and the notes in reserve, decrease, 1,024,000*l.*. The total reserve of notes and coin in the banking department was 5,979,748*l.*, against 7,591,267*l.* last week, showing a decrease of 1,611,519*l.*

Mr. Francis William Russell, M.P., Chairman of the National Discount Company, has been elected Chairman of the London Bank of Mexico and South America.

Messrs. Cram Ewing, M.P., and Frederick Lubbock, of Leadenhall-street, have joined the board of the Colonial Company (Limited). Petitions for winding-up the Rossa Grande Gold Mining Company, and the St. Cuthbert Lead Smelting Company, are to be heard before the Master of the Rolls on Saturday.

A petition for winding-up the United Merthyr Collieries Company is to be heard before the Master of the Rolls on Jan. 13.

During the year 1865, 287 new companies have been introduced, with an aggregate proposed capital of 106,995,000*l.*. They may be thus analysed:

Companies.	Number.	Capital authorised.	Capital offered.	Deposit.
Manufacturing and trading	119	£28,735,000	£22,207,900	£3,890,290
Banking	11	15,200,000	10,400,000	1,465,000
Railways	13	12,720,000	8,140,000	1,180,900
Financial and discount	9	12,200,000	9,080,000	1,095,000
Building and investment	32	9,815,000	7,350,000	1,186,250
Assurance	7	2,250,000	2,050,000	395,000
Shipping	15	6,170,000	4,235,000	729,100
Mining	49	4,505,000	4,195,000	1,038,000
Gas	5	1,925,000	1,725,000	370,000
Hotels	12	1,300,000	1,250,000	264,500
Miscellaneous	15	5,175,000	3,975,000	660,750
Total	287	£106,995,000	£78,578,900	£12,174,790

THE COPPER TRADE.—Mr. J. Piteairn-Campbell, of Liverpool, reports—On Dec. 18 the smelters reduced their quotations 10*l.* per ton, to 106*l.* for unmanufactured, and 111*l.* for manufactured, and this, together with the news alluded to in my last, and the report that Spain had accepted the mediation of England in the Chili affair, depressed the market, prices for some days being nominal. The impression, however, is speedily returning that a termination of the difficulty is remote, and consequently, buyers of Chili bars have appeared at 95*l.* to 96*l.*, whilst holders generally are disinclined to sell. Ores and regulus may be quoted at 18*l.* to 19*l.*, and barilla at 19*l.* 6*d.* to 20*l.*. Sales since my last:—

Dec. 15.—1000 tons Australian ore .....	£ 0 18 3	per unit.
" 22.—600 tons Cobre ore .....	17 <i>s.</i> 6 <i>d.</i>	to 18 0 "
" 23.—50 tons bars, ex "Bodryddan" .....	95 0 0	per ton.
" 23.—13 tons bars, ex "Arica" .....	95 0 0	"
" 23.—35 tons bars, ex "San José" .....	95 0 0	"
" 25.—20 tons bars, ex "Ecolir" .....	95 0 0	"
Arrivals from the West Coast, S.A.—Ores. Regulus. Bars and Ingots. Barilla.		
"Naverby," Valparaiso .....	440	522
"Bolivia," Valparaiso .....	—	47
"Paracana," Guayaquil .....	—	545
"Esk," Arica .....	—	12
At Swansea—		
"Augustus Schneider," Totoralillo ..	550	—
"Fairy," Paposo .....	590	—
"Robert Bright," Caldera .....	380	—
"Beatrice," Caldera .....	160	440
"Rose of England," Taitai .....	165	405
"Delaware," Chancarral .....	—	550
"Admiral Fitzroy," Caldera .....	45	40

THE COPPER STANDARD.—The standard at the sale on January 4 was 129*l.* 13*s.*; produce, 6*l.*; price per ton, 5*l.* 17*s.*. Compared with the previous sale on December 28, the standard has advanced 1*l.*, and the price of ore, 1*s.* 5*d.*. Compared with the corresponding sale on December 7, the standard has advanced 4*l.* 10*s.* and the price per ton of ore 5*s.* 6*d.*. Price per unit, sale December 7, 16*s.* 5*d.*; price per unit, sale December 14, 17*s.* 6*d.*; price per unit, sale December 21, 17*s.* 7*d.*; price per unit, sale December 28, 17*s.*; price per unit, sale January 4, 17*s.* 7*d.*

THE TIN STANDARD.—The tin standard remains as last reported, and as fixed on Nov. 7.—Refined, 94*s.*—95*s.*; common, 92*s.*—93*s.*. There is, therefore, a difference of about three in the standard only from the prices ruling this time last year, when they were as follows:—Refined, 91*s.*—92*s.*; common, 89*s.*—90*s.*. The difference in the price of English tin, say for common block, this time last year was 9*s.*; it is now 10*s.*. The demand is now very good, and full prices are realised. The general tone of the circulars of the metal brokers is, that the stocks of tin will continue very heavy, and there is no prospect at present of any higher price for English tin being obtained.

NEW YORK, DEC. 21.—As usual at this time of year, the market for pig-iron has become slack, and the sales are unimportant. The demand for consumption has fallen off considerably, and prices favour buyers. There is not much pig offered, as the amount on hand is small. Lots to arrive are offered more freely, but are not in much request. The blast-furnaces are still well occupied, and their orders will last them for some time yet. The prices for all kinds of iron are not so firm as they have been. The business in bars from store continues good for the season, and is still quite brisk. Stocks are, however, much broken, and many sizes and styles scarce. Copper has been fairly active, and the market closes firm. The news from Europe in regard to Chilean affairs has a tendency to make holders of copper reluctant to sell, except at full or advanced prices. The effect of the advances in Tin recently made in Europe has been to make prices here firm, and the market is decidedly in favour of prices. A large sale of Straits has been made on private terms. The demand for Plates is small.—Iron Age (U.S.).

FRONTINO AND BOLIVIA (SOUTH AMERICA) GOLD MINING COMPANY.—The advice received from these mines by the last West India mail continues to be of a satisfactory character, as far as their mineral-producing capabilities are concerned, although the development does not appear to have progressed as rapidly as had been anticipated. It would seem that the operations have been retarded, owing to some differences of opinion having existed between the superintendent and the head captain, which has resulted in the return of the latter to this country. To ensure a thoroughly vigorous development of the properties it is more than probable that at the meeting, to be held on Monday, the directors will determine to at once dispatch to New Granada an effective staff of Cornish miners, with the view of simultaneously developing both the Frontino and Bolivia Mines upon a much more extended scale than that hitherto adopted. To meet the additional expenditure thus incurred it will, no doubt, be found necessary to make a call, the more especially as no remittance came to hand by this mail. There is, however, in the hands of the company's bankers at Medellin gold of the value of something like 2000*l.*. The general meeting of shareholders, to be held in the early part of February, is looked forward to with considerable interest.

ELIGIBLE INVESTMENT.—FOR SALE, A SHARE IN A REMUNERATIVE COAL AND IRON MINE, situated in a great coal and mining district. The colliery now pays 15 per cent. The present proprietor is desirous of retiring on account of ill health, which is the reason for sale. None but principals need apply.—Address, "R. C. A.," Mining Journal office, 26, Fleet-street, London.

THE FORTUNE COPPER MINING COMPANY OF WESTERN AUSTRALIA.—SHARES IN this company TO BE SOLD. No reasonable offer refused.—Apply to Mr. J. W. HART, 60, St. Mary Axe, London.

SPIEGELEISEN (OR WHITE IRON) AND MAGNETIC IRON ORE.—WANTED TO DISPOSE OF, A PART INTEREST, OR THE WHOLE, OF MINES OF THE ABOVE ORES, of the purest and finest description. Sale of ore treated for.—Apply by letter, to "A. Z.," care of Robert Stackpool, Esq., solicitor, Pinner's Hall, Old Broad-street, City, E.C.

OXIDE OF ZINC, containing from 60 to 72 per cent. About EIGHTY TONS FOR SALE.—Apply to Mr. G. J. PARCETT, C.E., New Adelphi Chambers, 12, John-street, London, W.C.

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, OZZELL STREET NORTH, BIRMINGHAM.

SEE HEN BARKER begs to inform the Trade that he has the following articles or sales:—REFINED METALLIC NICKEL. OXIDE OF COBALT. [WIRE, &c.] REFINED METALLIC BISMUTH. GERMAN SILVER—IN INGOTS, SHEET NICKEL AND COBALT ORES PURCHASED.

GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND CHEMICAL WORKS. NEAR STROKE-UPON-TRENT, STAFFORDSHIRE. JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER. Purchaser of Borate of Lime and Zinc.

PRINCE AND CO., MINING AND GENERAL SHAREDEALERS, CAMBORNE, CORNWALL. Being in the immediate neighbourhood of the most important mining district in England, and intimately acquainted with the managers and agents of mines, should be consulted as to the best paying and speculative investments. PRINCE AND CO. are always in a position to purchase or dispose of shares in any marketable mine, at close prices, free of commission. Orders executed with promptitude. N.B.—Peruse our "Mining Circular."

TO MINE MANAGERS, AGENTS, &c.—CAMBORNE VEAN ASSAY OFFICE (in close proximity to the railway station). PRINCE AND CO., CAMBORNE.

Samples sent to the above office will be attentively assayed, and produce forwarded the following day, if required.

FOR SALE, A 26 by 3 ft. WHEEL, with first-class DRAWING MACHINE and CRUSHER (by Harvey and Co.)—Apply to Messrs. PRINCE AND CO., Mining Offices, Camborne, Cornwall.

MR. CHARLES RAWDEN, INSPECTING MINE AGENT, ST. DAY, CORNWALL, OFFERS HIS SERVICES TO CAPITALISTS SEEKING TO INVEST IN MINES.

TO COLLIERY MANAGERS.—AN EXCHANGE WANTED, upon equivalent terms. The SON of a QUALIFIED MEDICAL MAN for the SON of a MINING ENGINEER, where each would have an opportunity of learning practically the profession.—Address, "G.," Mr. Bushby's, Grantham.

TO COLLIERY PROPRIETORS AND OTHERS.—WANTED, by a young gentleman, a SITUATION as SURVEYOR at a COLLIERY, or ASSISTANT to a MINING ENGINEER. Satisfactory references given.—Address, "M. S.," Messrs. Allbut and Daniel, Hanley.

TO LANCASHIRE COLLIERY PROPRIETORS.—WANTED, AN AGENCY for the SALE of a GOOD QUALITY of LANCASHIRE COAL. Advertiser has a first-class connection amongst the largest consumers in Liverpool.—Address, "E. G.," Journal of Commerce office, Liverpool.

TO MINE AGENTS AND OTHERS.—FOR SALE, at WHEAL SIDNEY, Plymouth St. Mary, Devon, a 56 inch CYLINDER PUMPING ENGINE, with 10 ft. stroke in cylinder and 9 ft. in shaft, with BOILER about 11 tons, in good condition; also an 18 inch CYLINDER DRAWING ENGINE, with cage, complete.—Apply to Mr. J. ANDREW, Auctioneer and Surveyor, Ridgeway; or to Capt. W. EDWARDS, on the mine.

TO CAPITALISTS.—WANTED, A PARTNER IN ONE of the MOST PROMISING COLLIERIES IN NORTH WALES. The royalty is about 500 acres, and is already proved to contain four valuable seams of coal, adapted both for house and steam purposes, and the returns on the capital invested will be at least 50 per cent. annually. The capital is required for the full development of the concern and if preferred the incoming partner may have the entire management, financially and otherwise.—Address, "W. 15," Post-office, Liverpool.

MINING AND METALLURGICAL ENGINEER.—AN ENGLISHMAN, a former slave of the Freiberg School of Mines, late manager of copper mines and smelters; silver and gold crushing amalgamation works in various parts of the world, and fully conversant with the French, German, and Spanish languages, is READY TO ACCEPT AN ENGAGEMENT for HOME or ABROAD.—For particulars, apply to "H. S.," Mining Journal office, 26, Fleet-street, London, E.C.

A MINING ENGINEER is OPEN to an ENGAGEMENT with a company or landed proprietor. Has a thorough knowledge of the South Wales coal and iron measures, also of some parts in Europe. The highest references can be given.—Address, "C. E.," care of Messrs. R. Fottell and Son, 14 and 15, Royal Exchange, London, E.C.

AN ASSAYER OR METALLURGIST.—WANTED, an ENGAGEMENT at home or abroad, by a METALLURGICAL ASSAYER, who could also superintend the smelting or purchasing of ores.—Address, Mr. F. J. MERRI, 12, Calvert terrace, Swansea.

A GENTLEMAN having an extensive connection with Merchants, Manufacturers, and others, would be GLAD to UNDERTAKE the SALE of PATENTED ARTICLES or INVENTIONS, on commission.—Apply to Mr. W. T. RAWLEY, patent and mining agent, 8, Small-street, Bristol.

COMMISSION AGENCY.—A GENTLEMAN, residing in the heart of the West Cornwall mining district is WILLING to UNDERTAKE the SALE of CANNELS, STEEL, ROPE, or any other MATERIALS USED IN MINING, on commission. The highest references will be given. Advertiser has a large mining connection. Apply, "H. W.," Mining Journal office, 26, Fleet-street.

WANTED, a GENTLEMAN to JOIN TWO OTHERS in WORKING an excellent COLLIERY in SOUTH WALES. Capital required, from £5000 to £10,000.—Address, "A. L.," 53, New Cross-road, London.

WANTED, by an ASSAYER of 15 years' experience, a SITUATION. Can assay copper, silver, gold, lead, tin, zinc, &c. References unexceptionable.—Address, "A. B.," Mining Journal office, 26, Fleet-street, London, E.C.

WANTED TO PURCHASE, A SINGLE OR DOUBLE BLAST ENGINE, capable of blowing either one or two blast-furnaces.—Apply, with particulars, stating price, delivered at any broad gauge railway station, to Mr. JOHN OVERBURY, 28, Poultry, London.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Dec. 29.—Great Laxey	100	£25 12 6	—	Barry Port &c.
—Great North Laxey	30	15 6	—	Panther Lead Co.
30.—Bronfloyd	60	14 15 6	—	A. Eytton.
Jan. 1.—East Loughy	106	13 12 6	—	ditto
—Glogfahy	82 1/2	17 12 6	—	Walker, Parker, & Co.
—ditto	27 1/2	17 12 6	—	Newton, Keates, & Co.
—Cwmystwith	60	13 13 6	—	Panther Lead Co.
—ditto	60	13 14 0	—	ditto
3.—Mass-y-sall	70	14 3 0	—	Panther Co.
3.—Miners Union	15	13 16 6	—	A. Eytton.

BLACK TIN.						
Date.	Mines.	Tons c.	q. lbs.	Price per ton.	Amount.	Purchasers.
Dec. 16.—	Drake Walls	17	2 1 30	£3 15 0	£1074 7 5	— Enthoven.
— ditto	—	4	4 2 20	61 10 0	273 1 7	— ditto
27.—	West Beam	6	3 0 16	62 0 0	381 14 10	— Enthoven.
— ditto	—	11	3 3 25	88 0 0	994 11 0	— ditto
28.—	Wheel Grenville	1	14 0 0	61 10 0	—	— Mellanor.
— ditto	—	2	2 18 0	63 0 0	—	— ditto
30.—	East Wh. Grenville	5	3 2 18	61 10 0	—	— ditto
— ditto	—	1	11 2 20	53 0 0	—	— ditto



## WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,  
MINING AGENTS, STOCK AND SHARE DEALERS, &c.  
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past few years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

"P."—The questions of our correspondent, relative to East Rose, arrived too late to answer last week. The mine was the richest lead mine ever discovered in Cornwall. The first dividend paid was in 1840, and the last in 1853. The most paid in any one year was 370l. per share, in 1844. Total amount of dividends paid, 276,000l. The mine, it will be seen, had a short and brilliant—and, we might add, a sad—reign. It was in 128 shares, which reached 1500l. each. When we first introduced them to our clients, in 1843, they were 300l. each. The lead was not rich in silver, and produced 12l. to 13l. per ton on the average, and the lode so soft and wet that quite a forest of timber was required to prop and board up the levels. A short time before dividends ceased a water-burst broke over one of the shafts during a tremendous storm, and drowned, if we remember rightly, about 40 men, and the mine, always dangerous to work, may be said never to have entirely recovered this accident. The history of the mine altogether was rather romantic; in its early working it was so poor that a meeting was called to abandon it, and the accounts, when made up, showing a balance too inconsiderable to divide, it was resolved to spend in driving a cross-cut—a sort of voyage of discovery—and before the money was spent a rich lode, cropping up to the surface, was met with, and which subsequently yielded the profit of 276,000l. The shares at one time also were quite valuable, and the then Governor of the Bank of England held several, which he took for a bad debt, and for years never considered them worth anything, but we sold them for him, for several thousand pounds.

EAST SNAPELL AND GREAT NORTH LAXEY.—Captain W. H. Rowe says we appear to have been in error with regard to the report of East Snape's meeting. We quoted, however, from the report in the *Journal*, page 796, and the only letter there is signed "W. H. Rowe," and to this it was only natural to conclude the subsequent conversation referred. As we have always understood from the manager of Great Laxe, that mine has two lodes, one formerly rich; out the present great riches are from a side lode, which is the Great North Laxe lode.

WHEEL TRELAUNY.—One who signs himself "A Miner, Liskeard," would insinuate that we take more credit than is due, for having "introduced this mine to the public," and which, he says, "has been in the capacity of 'brokers,' and not as promoters." The mine was indeed introduced to the public by "brokers," and not as promoters. The mine was first discovered by the Messrs. Clymo, to whom every praise on that score is due, but we repeat again, that we "first introduced it to the public." And as an instance of the difficulty there was 20 to 30 years ago in introducing mines in new districts, we may mention that when the Messrs. Clymo first discovered South Caradon the late Captain James came to London to endeavour to dispose of a few shares, but he failed, owing to the district not being known; and the specimens of ore, which we well remember handing, failed to convince "too much" of the mine. The mine was in 64 shares, and in returning to Cornwall in the mail with a friend of ours (who held largely in the rich Old Treavean); Capt. James offered him 32 64ths in South Caradon, at 5l. each. The shares were refused, luckily for the Messrs. Clymo, as they soon after rose to 3000l. each, and after paying over 200,000l. in dividends, the mine still continues the richest for copper in Cornwall. "A Miner" says, in reference to South Treilawny, that he is not positive who were the promoters of it; but one fact, he says, he knows—"that there was never a lode seen in the sett." The promoter was a Liskeard man, and made a large premium of it, upon the strength of its position. We remember going underground, in 1845, with two or three practical agents in the district, and a lode was certainly shown to us, though it never proved worth a dump.

Let us add here, that our remarks on Mines and Mining, and which we are daily asked by numerous correspondents to continue, are not made anonymously, and the public will be better able to judge between us and those who differ from us in opinion, or question the accuracy of what we state, if they, our critics, will also give their real names and occupations.

GREAT NORTH LAXEY.—The first sale of ore by the present company has just been made—viz., 30 tons, at 15l. 6d. per ton=458l. 5s., and the financial position at the end of the year 50s. thus:—

Cash in hand.....	£3764 10 1
Ore sold.....	458 5 0=£3222 15 1
Deduct cost-sheet due, including merchants' bills.....	216 0 0
Balance in hand.....	£3996 15 1

And as several points in the mine are now productive, and the total costs under 200l. per month, there is no prospect at present that any call will be required, and the shares are as well buying now as when they were at 3l. each.

"J. E. H."—Anyone can relinquish his shares in a mine, and be clear from further responsibility, by paying his proportion of debts up to the date of his relinquishment. No one, however, as we apprehend, can relinquish after a call has been made without first paying that call.

"H. P." (Bath).—The questions our correspondent asks to have answered in this place respecting West Chiverton and Chiverton Moor shall be attended to next week. We cannot undertake to answer, the same week, any queries received later than Wednesday morning. This applies to "A Shareholder in Wheel Crebor," "X. Y. Z.," &c.

TRADE MARKS.—In the case of the Leather Cloth Company (Limited) v. Hirsfield, the plaintiff had obtained an injunction against the use of their trade mark on cloth, and an enquiry as to damages. They did not prove direct damage, and could not show to what extent their trade mark had been used, but claimed damages equal to all the profits made by the defendants on all their sales of cloth. It was held by Vice-Chancellor Wood that they were not so entitled, and had not given sufficient proof of any damage sustained by them.

COMPOSITION DEEDS.—A deed of composition made by the members of a partnership with the creditors of the partnership, under section 192 of the Bankruptcy Act, 1861, is not binding on the separate creditors of each partner. This was the holding of the Court of Queen's Bench in the case of the European Central Railway Company (Limited) v. Westall. The Lord Chief Justice remarked that the machinery of the 192nd section of the Bankruptcy Act, 1861, was not applicable in this case.

LAKE SUPERIOR COPPER MINING COMPANIES.—Statistics of the copper mining companies of Lake Superior show that there are ninety-four companies, with their offices situated principally in New York, Philadelphia, and Boston. The combined number of shares is estimated at 1,960,000. They claim that the amount paid in is \$13,109,124, not including the original cost of mining nor the sum derived from the sale of copper which have been expended in developing the mines. The aggregate of cash dividends is estimated to be \$5,600,000.

COLORADO MINES.—Colorado yielded in gold in 1859, \$4000. In 1863, \$20,000,000. By new and improved processes 95 per cent. of the gold from the ore is now obtained, when it used to be 20 to 40 only. So important is this improvement that old "tailings" are re-worked, with rich results.

MAGNESIUM IN AMERICA.—As might have been prognosticated, the Americans have not been slow to convert the magnesium light to public service. In their theatres it is superseding the lime light. It was first introduced at the Boston Theatre. The wire is burnt in a large lamp, and delivered by clockwork. The flame sustains itself continuously from an hour and a half to two hours, in which time from 3 to 1½ oz. of metal is consumed. The fumes are arrested within the lamp by mechanical means, and thus the reflector and the glass in front are preserved from fouling. Although the lamp costs \$100, the maker finds it difficult to meet the orders he receives for it. An American magnesium company has commenced operations at Boston, and is driving a brisk trade in the novel commodity.

A NUGGET.—A Montana paper says—Last week the Queen trophy of the mountains was found by De Foe and Co., in Deadwood Gulch. The monster nugget weighed 14½ lbs. avoirdupois, and measures in length 9 in., in breadth 2½ in., and in thickness 1½ inch. The specimen is almost entirely free from quartz. The lamp is worth \$6500.

## Notices to Correspondents.

BLEND AND LEAD ORE PURCHASERS.—That the list published in last week's *Journal* may be more correct, I beg to inform you that instead of William Kunkin, Rumbon, the firm is now S. Kenrick and Son; and that Alfred Courage and Co., Baghill, and the Rydbo Smelting Company, Wrexham, have ceased working for some time back; but you may add the Runcorn Smelting Company, Runcorn, who are buyers of lead ore.—J. W., Jan. 1.

SPRING ORE.—Mr. John Sutherland, of Glasgow, has obtained a mineral from Ireland which upon assay gives Ferric oxide 90½ per cent., and matter insoluble in nitric or hydrochloric acids 9½ per cent.=100; it is unacted on by the blowpipe, and contains no carbonaceous matter. What is the difference between this and the Henneck shining ore, referred to in the *Journal* three or four years since?—D. F.

WATER AS A LUBRICATOR.—"D. R." (Truro).—The trial of Aerts's water-box for lubricating the journals on railway carriages, alluded to in the *Journal* of Dec. 16, was made on the North-Eastern Railway, under the superintendence of Mr. V. de Pelsmacker, of Gateshead-on-Tyne. In next week's *Journal* we shall publish an illustrated description of the water-box in question, which, it is claimed, is equally applicable to the lubrication of machinery.

GOLD IN WALES.—I exceedingly regret to find that Mr. Piaminek has left the Cambrian Mines, after having constructed some most efficient machinery, from which the greatest possible advantages were anticipated, and which he has not been permitted to realise. Can it be true that a jealous feeling has been allowed to interfere with the arrangements of the company, to the prejudice of the shareholders and of all who are interested in the questionable profitable working of gold in England? Surely we have a right to expect some explanation. The position is a plain one:—Mr. Piaminek considered he could bring the mines into a profitable position, and for the purpose constructed some machinery, which was highly approved by competent judges; now, why has he left the company without carrying out his contemplated operations? Is not this a matter which the London officials should enquire into, and inform the shareholders, who have clearly a right to be kept informed on all matters affecting their interest?—INQUIRER.

GOLD IN WALES.—In last week's *Journal*, Capt. William Vincent, in his report of the Welsh Gold Mine, states that—"An improvement has taken place at the intersection of the cross-course; the mineral is not rich, but the portion broken out is worth 1 oz. of gold per ton." Will Captain Vincent kindly inform me, through the *Journal*, how long since he has considered 1 oz. of gold per ton not rich?—ONE WHO IS INTERESTED.

DEVON UNION MINING COMPANY (Limited).—If your correspondent in last week's *Journal*, who signs "O. N.," will apply to the proper person he will, no doubt, obtain the information. The secretary keeps the books and accounts, and if "O. N." was a shareholder he will know where to find him.—HENRY GOULD SHARP: 32, Foultry, E.C.

DEVON UNION MINING COMPANY (Limited).—Every shareholder interested in this mine must be aware it has been wound-up. Mr. G. Cape (accountant), of Adelaide-place, London-bridge, was the secretary to the company, and is in a position to give every information.—S.

THE CHIVERTON DISTRICT.—Being, according to my means, a heavy shareholder in Chiverton, I shall be obliged to any of my fellow-adventurers who will enlighten me on the following particulars:—Why does Chiverton, situated in the immediate neighbourhood of the deservedly far-famed West Chiverton, not take a higher stand in the mining market? It cannot be that the enormous wealth already taken from the mine at a comparatively shallow depth deters speculators from taking cognizance of its merits. It cannot be because the mine is now clear for yielding working expenses, with a prospect of paying as good dividends as West Chiverton has hitherto paid, that keeps down the shares. What then, think you, is the reason the shares are not selling at double the present quotations? It cannot be many months before this lethargy is dispelled by a great sensation, unless some one of the many who read this can give a tangible reason why they do not take their proper position in the market.—NEWCASTLE.

THE MINING JOURNAL  
Railway and Commercial Gazette.

LONDON, JANUARY 6, 1866.

THE COAL FORMATION BENEATH THE NEWER STRATA  
OF THE MIDLAND AND SOUTHERN COUNTIES OF ENGLAND.

About twelve years have elapsed since this subject was very elaborately treated by Mr. Joseph Holdsworth, in a series of papers, which appeared in our *Journal* about that period. In one of the more lengthened of them he—Firstly, comprehensively depicts an expansive area, as bordered occasionally by Silurian and other rocks commonly constituting the floor of the coal measures, and sometimes their barriers; secondly, particularises the distribution thereon of the carboniferous strata; thirdly, exhibits the probable sub-connection of most of our isolated coal fields; fourthly, describes the distribution, &c., of the Secondary and more recent formations overlying them; and, fifthly, appealing to observed facts, bearing on their often attenuated character, and frequent absence of groups of strata, and even of whole Formations, argues against the fallacious nature of the doctrine so long pertinaciously maintained by geologists and others of the sub-insular character of our superficial coal tracts, as also that the great classes of strata almost always succeeded each other, from below upwards, in regular sequence, thus, for the most part, encircling the globe like the concentric coats of an onion. From a variety of evidence thus adduced Mr. Holdsworth drew the conclusion that the coal beds actually existed beneath vast areas of the Midland and Southern Counties of England, and not infrequently at depths very accessible to the miner.

A correspondent, a few weeks ago, called the attention of our readers interested in this subject to the above. Several years, indeed, previous to the above intimated period Mr. Holdsworth extensively promulgated these views, on precisely the same grounds, and, in short, has not only been a strenuous advocate in this pregnant cause, but it is well known has given undeniable proofs of his sincerity therein; and it gives us much pleasure now to be able to add that he has at the present time a little work on this most important subject in the press, and which will shortly be published at our office. We are glad to perceive that at length one or two other of our notable geologists are beginning to direct their attention to the matter, and trust are long to see it thoroughly discussed in all its essential bearings, and the public generally attracted to the practical solution of a problem of such vast consequence to the national welfare.

## SAFETY CAGES FOR MINES.

Although a large number of safety-cages for mines have been from time to time introduced, the question has not yet been settled whether it is preferable for the safety apparatus to be brought into operation each time the cage reaches the top or bottom of the shaft, or whether it should only be used when it is required through the actual occurrence of an accident; and hence it is that, whilst one inventor claims the continual testing of his safety arrangement as an advantage, another declares that his invention is superior, because there is no wear until the use of the safety apparatus becomes a necessity. In the improved apparatus for suspending mine cages, patented by Mr. C. H. Taylor, of Birmingham, and to which reference has before been made in the *Journal*, the view adopted is that unless the apparatus be continually tested no dependence can be placed upon its acting when required. At the opposite sides of the mine shaft he proposes to provide parallel vertical racks, extending from the top to the bottom of the shaft, and between these guides the cage works.

The safety mechanism is arranged in a box which may be placed either above or below the cage, and is of a comparatively simple character. At those sides of the box opposite the racks are toothed wheels or pinions, one on each side, the axes of which work in uprights in the said box, the teeth of the said toothed wheels or pinions engaging with the teeth of the fixed racks. On the axis of each toothed wheel or pinion is a ratchet wheel and two vertical levers, the upper ends of which are formed into palls, are situated between the ratchet wheels. By means of a sliding horizontal wedge, the lower ends of the said levers may be operated upon so as to lift the palls from the ratchet wheels. Or the said sliding wedge may be moved so as not to affect the said levers, in which case springs acting on the said levers press the palls upon the ratchet wheels. The direction of the teeth of the said ratchet wheels, and the positions of the palls with respect to the said ratchet wheels, are such that when the said palls are in gear with the said ratchet wheels the toothed wheels or pinions can rotate in the direction impressed upon them by the rising skip or cage, but are incapable of rotation in the contrary direction. The chain or rope for raising and lowering the skip or cage is connected to the top of the box described, or to the skip or cage, and in case of the accidental breaking of the chain or rope during the ascending motion of the skip or cage, the said skip or cage is suspended between the two racks by the palls, preventing the rotation of the ratchet wheels and toothed wheels or pinions in the direction necessary to permit the descent of the said skip or cage. When the skip or cage has ascended to the top of the mine shaft, the sliding horizontal wedge may be made to throw the palls out of gear with the ratchet wheels, when the skip or cage can readily descend. When the loaded skip or cage is about to be raised, the attendant at the bottom of the mine shaft moves the sliding wedge so as to cause the palls to engage with the ratchet wheels, when the skip or cage can be raised without risk of accident on the breaking of the chain or rope.

But the great defect of this arrangement is that it will prevent an acci-

dent only when the rope breaks whilst the cage is ascending, and, conceiving the inconvenience of this, Mr. Taylor proposes another and far superior arrangement, which consists in substituting for the palls a slide or wedge, having teeth on each side. When requisite, friction-brakes may be applied to the axis of the toothed wheels or pinions gearing with the racks, so as to produce any required amount of resistance to the descent of the skip or cage, so that in case of accident to the chain or rope when the skip or cage is descending, its fall may be so checked as to prevent or reduce any injurious effect. It is, however, in ordinary cases only necessary to provide against accident during the ascent of the loaded skip or cage. The toothed slide described may be used for preventing the fall of the descending skip or cage on the accidental breaking of the chain or rope. It will be obvious that if this wedge-shaped toothed brake block be so mounted on slides, (say) two on each side, as to cause it to fall straight when released by the slackening or breakage of the rope, and if the lower end be then weighted, the use of springs may be entirely dispensed with, and the apparatus rendered in every way applicable to any mine in which toothed guides are employed. Mr. Taylor has submitted the invention to several colliery viewers of known experience, who highly approve of it.

THE GROWTH OF THE IRON AND STEEL TRADES  
IN THE UNITED STATES.

In the *Journal* of Dec. 23 we published a list of the works in the United States rolling railway iron; and, under the auspices of the American Iron and Steel Association, Dr. R. H. LAMBORN, the secretary of that society, has now completed the statistics of the whole of the furnaces, mills, and forges in the country. The anthracite furnaces have been divided into five geographical groups—

- 1.—The Lehigh group, comprising the furnaces situated in the valley of the Lehigh and Delaware rivers, including the Cooper furnaces, opposite the mouth of the Lehigh, in New Jersey.
- 2.—The Schuylkill group, comprising the furnaces in the valley of the Schuylkill river.
- 3.—The Lower Susquehanna group, comprising the furnaces of the valley of the Susquehanna river, in and below Harrisburg, including the anthracite furnaces in Maryland.
- 4.—The Upper Susquehanna group, comprising the furnaces in the valley of the Susquehanna, above Harrisburg, and of the Juniata.
- 5.—The Eastern group, comprising all the anthracite furnaces east and north of Pennsylvania. Of this group New Jersey contains one, New York twenty-four, Connecticut two, and Massachusetts three.

In the year 1849 the Lehigh region produced but 44,347 tons of metal, being an average of 4434 tons for each furnace in blast. In 1860, the year before the war, they produced 173,075 tons, while in 1864 the production reached 214,093 tons, an average of 7939 tons each furnace. Their total annual capacity in 1860 was 76,166 tons. In the present year they are capable of producing 267,116 tons. This region, in 1864, consumed 486,105 tons of ore and 469,051 tons of anthracite coal. Of the 30 furnaces in this group 23 are now in blast.

Of the 24 furnaces in the Schuylkill group 20 are now in blast. In the year 1849 this region produced 23,486 tons of metal, being an average of 2929 tons for each furnace in operation. In 1860 they produced 92,345 tons; and in 1864, 112,566 tons, an average of 6772 tons per furnace. In 1860 the total capacity of the region was 42,530 tons. Their present capacity is 143,150 tons. In 1864 there were 259,000 tons of ore and 227,000 tons of coal consumed.

Of the 32 furnaces composing the Lower Susquehanna group 22 are now in blast. In 1849 this region produced 24,258 tons of metal, an average of 2694 tons per furnace. In 1860 they made 101,246 tons; and in 1864, 118,616 tons were produced, averaging 4394 tons per furnace. The capacity of these furnaces in 1860 was 72,400 tons. They are now able to produce 176,851 tons. In 1864 this region consumed 271,792 tons of ore and 228,586 tons of coal.

Of the 29 furnaces in the Upper Susquehanna group 16 are now in blast. In 1849 this region produced 26,625 tons of iron, an average of 2420 tons per furnace. In 1860 the production was 69,698 tons, which was increased in 1864 to 108,664 tons, an average of 5175 tons for each furnace. The utmost capacity of this region in 1860 was 68,700 tons. The present year it is capable of producing 167,500 tons. Eight furnaces in this group have been idle for a number of years. In 1864 this region consumed 261,015 tons of ore and 218,477 tons of coal.

The amount of ore consumed in 1864, in tons of 2000 lbs., was as follows:

Name of Groups.	Ore.	Flux.	Coal.
Lehigh.....	486,105	273,660	459,051
Schuylkill.....	259,934	138,941	227,615
Susquehanna.....	274,762	110,069	228,586
Upper Susquehanna.....	261,015	132,085	213,477
Eastern.....	242,488	77,820	238,147
Total.....	1,530,301	720,575	1,385,171

The total production in 1864 of anthracite pig-iron was:—  
Massachusetts.....Tons 2,509  
New York.....120,463  
New Jersey.....29,578  
Pennsylvania.....621,391  
Maryland.....10,878

The production of the raw bituminous coal and coke furnaces of the country for the year 1864 was 210,108 tons, as follows:—

Pennsylvania.....Tons 121,860
Maryland.....1,717
West Virginia.....2,800
Ohio.....82,731

In 1849 there were 79 charcoal furnaces in Pennsylvania east of the mountains, which produced in the year 55,617 tons. By the year 1862, 32 of these had finally ceased operations. In the remaining 47 at least 7 new furnaces had been added. The production in that year was 36,876 tons. In 1864, 42,953 tons were made west of the Allegheny mountains. In Pennsylvania there has been since 1849 a very marked and rapid decrease in the production of charcoal iron. This region in 1849 produced 55,494 tons of charcoal iron, 35 furnaces being in operation. In 1865 nine furnaces only were in blast, producing 6701 tons.

THE FOREIGN COAL TRADE.—Our coal exports experienced in Nov. a certain check, having amounted in that month to 731,329 tons, as compared with 773,395 tons in Nov., 1864, and 661,823 tons in Nov., 1863. The exports to France fell off in Nov., although they were still above the level of the corresponding month of 1863. In the eleven months ending Nov. 30, 1864, the exports of coal to France attained a total of 8,484,336 tons, as compared with 8,141,388 tons in 1864, and 7,745,837 tons in 1863 (corresponding periods). The exports to France made great progress, upon the whole, last year, having amounted to Nov. 30 to 1,442,682 tons, against 1,311,757 tons in 1864, and 1,200,673 tons in 1863 (corresponding periods). It is not a little remarkable that, notwithstanding the great increase in the production of coal in France, Belgium, and Prussia, all three countries present the first phases of a coal famine, but the fact is the industrial progress of each State is so rapid as to upset all theories and calculations on the subject. The exports of coal increased last year to Russia, Sweden, Denmark (very considerably), Prussia (very considerably), the Hanse Towns, Brazil, &c.; but they decreased to Holland, Spain, Italy, the United States, and British India. The value of the coal exported to November 30 last year was calculated at 4,071,475l., against 3,829,084l. in 1864, and 3,456,312l. in 1863 (corresponding periods).

PETROLEUM.—The export from America to all parts during the past year has fallen considerably short of that of the previous one, and to London direct, perhaps, to a greater extent than to any other port. To these facts, combined with the greatly increased consumption both at home and abroad, may be attributed the large and progressive rise in price that has taken place. 2s. 1d. per gallon being the average of American refined Pennsylvania during January, and as high as 3s. 9d. having been paid the early part of December. The influence exercised by this movement has certainly been most beneficial to the trade at large, for not only has it to a great extent prevented the reckless speculation which abounded in past years, thereby reducing it to a more legitimate basis, but has at length allowed the American exporters to realise a fair profit on their shipments, a most essential thing to the furtherance of continued supplies. The scarcity of American oils has also tended to a great extent in bringing prominently before the trade the refined coal oils now manufactured in very large quantities in Scotland and Wales, and it is not too much to say that the high prices obtainable has enabled the British refiners to produce an oil very little inferior to petroleum itself. Crude Pennsylvania has been limited, and for the most part consumed in Scotland. Crude shale and Boghead oils have attracted some attention for exportation, at from 10l. to 14l. per ton, but are for the most part refined for use by the manufacturers themselves.

SPECULATION IN PETROLEUM.—During the petroleum mania in America 1100 oil companies were started, with an aggregate capital of \$800,000,000. It is estimated that 15 per cent. of that amount has been actually paid-up, giving an aggregate of real investment of (say) \$90,000,000. The production of the present year may reach about 1,500,000 barrels. The exports have usually averaged about 37 per cent. of the entire production. The average price at the well is \$10 a barrel, making \$15,000,000 as the value of the year's production. Deducting 20 per cent. for company and working expenses, this yield would leave 18½ per cent. upon the estimated \$90,000,000 of actual invested capital, which, considering the risks and the uncertain duration of the oil wells, is not thought particularly remunerative.

RAILWAY COMMUNICATION IN THE CARDIGANSHIRE MINING DISTRICT.—The first section of the Manchester and Milford Railway was opened for traffic on Monday last. This line runs through the centre of the Cardiganshire mining district, and is, therefore, of special interest to our readers. It commences in a junction with the Carmarthen and Cardigan Railway at Pencader, which is about 15 miles north of the town of Carmarthen. It then goes direct to Lampeter, known throughout the country as the seat of the future Welsh University, which is now being raised upon the foundation of St. David's College, richly endowed by the Ecclesiastical Commissioners. From Lampeter the line makes a slight bend towards the east, and then reaches Tregaron, and on to Tretmadrilur, where there is a branch to Aberystwyth. The main line keeps slightly inclining to the east, as far as Yspithy-yetwyth, where there is a loop line to the



Aberystwith branch at Hendre Rhys. It then makes a sharp turn to the east, going straight to Llangurig and Llanidloes. It will be seen that this line is of the utmost value to a rich mineral district, affording easy means of transit for minerals to the best markets. It will also lead to the opening of new mines, from which speculators have been deterred, owing to the hilly and comparatively inaccessible nature of the country. The first section, opened on Monday, is from Pencader to Lampeter, which was inspected by Col. Yolland last week. The line is admirably laid out, and substantially yet economically built, by Messrs. Davies and Beeson, the contractors. The works beyond Lampeter are in a forward state. The permanent way has been laid down to Ystradmeurig, and the traffic in goods and minerals was opened on Monday from Pencader to Tregaros. We would also explain that at the other end the line is opened from Llanidloes to Llangurig. The works from Ystradmeurig to Aberystwith are being carried on with as much spirit as to leaving hardly any doubt that the line will be opened to that town in the course of the summer. The traffic to Lampeter for the present will consist chiefly of lime and coal. Of course, we speak from our own special point of view, as representing the mining interests. This will lead to an increased development of the western part of the South Wales coal field, which is fringed with thick and easily quarried limestone of the finest quality for building and agricultural purposes.

## FOREIGN MINING AND METALLURGY.

There is a continued active demand for coal in Belgium, and the collieries cannot literally meet the requirements of consumption. Freight rates are firm. The good tone of the English iron market inspires confidence in the advance in the price of iron, which the high rates of combustible in Belgium render necessary. There is no modification to note in prices, however, at present. Casting pig has been firm since the late advance. A contract for 6500 tons of rails has been concluded for Russia by the house of De Dordot and Sons, of Antwerp. The construction workshops are fully employed. The quantity of gas sold by the Belgian General Company for Lighting by Gas during Sept., Oct., and Nov., 1865, amounted to 48,164,331 English cubic feet, as compared with 44,115,517 English cubic feet in the corresponding period of 1864, showing an increase of 4,048,814 English cubic feet in favour of the current year's working. Another attempt was to be made on Thursday, Jan. 4, to dispose of the Bois de Tillet rolling-mill, belonging to the Sambre Blast-Furnace and Forges Company.

The collieries of the Santa Ana Coal Mining Company, a Spanish enterprise, were to be offered for sale at Paris, on Thursday, Jan. 4, at the upset price of 40,000. It is stated that an extraction of 500,000 tons of coal per annum could be effected at these mines. The French iron trade has improved, but competition makes default, and checks the production in a large number of works. The Northern of France Railway Company has just concluded a contract for 12,000 tons of rails with the Maubeuge Forges Company (R. Hamoir and Co.), at the rate of 71.8s. per ton. Some doubts having arisen with reference to the interpretation of the fifth article of a paragraph in a convention referring to the duties on iron and steel entering the Zollverein, the French Foremasters' Committee has made the necessary enquiries of the German Customs House authorities, and it is now in a position to announce that the term "iron worked in bars" applies to double T-iron, angle-iron, &c., as well as to rails, and that the duty imposed on rails is consequently applicable to them.

The Kiro Coal Mining Company (Limited) has just held a general meeting. The object of this undertaking is the working of four coal mines situated in Prussia and Germany, of which the promoters have obtained concessions. It also aims at all industrial operations ordinarily associated with the working of coal mines. The office of the company is established at Paris, with a branch office at Kiro, the principal concession. The share capital is 40,000, divided into 2000 shares. The duration of the company is limited to 99 years. The five directors appointed are: Mr. M. de Kiro, M. Tockert, M. Fijon, and M. Jules Graillet. M. Albert d'Arnaud has been chosen chairman. The company has decided to issue 5000 obligations of 4l. each, redeemable at 8l. each, by drawings by lot in 20 years after 1870. The Austro-Belgian Metallurgical Company has also held its annual meeting during the last few days. The report of the council of administration showed that the Corphalle works alone sustained the company, enabling it to effect the payment of interest on its obligations, and the redemption of its redeemable securities. The company has temporarily abandoned exploratory works, whatever may be the chances of brilliant discoveries. It is, however, as regards the prosecution of the Corphalle, the most prosperous state of affairs. In the extraction at Corphalle, Hayes-Monst, and Marche-les-Dames, the company limited its operations last year to the superior bearings; the profits realised were only sufficient to make good the losses sustained. The Corphalle establishment produced last year 4068 tons of zinc, and 551 tons of lead; this production was superior to that of the preceding year. The company distributes nothing to its shareholders; it has only just managed to meet its liabilities as regards the obligation holders and third parties. The directors state, however, that, independently of its extraction and fabrication, the company possesses the means of considerably improving its position. Thus, if an action now pending is decided in favour of the company, it will receive a sum of 80,000. If quotations become more favourable, large sums may also be derived from realisations of part of the stocks of manufactured products and minerals. The realised capital, shares, and obligations combined, not exceeding 130,000, it is easy to understand what a favourable influence the realisation of important stocks will exert on the forthcoming balance-sheets. The Austrian Minister of Finance, Count Lathisch, has declined to grant the company permission to extend its operations in Croatia.

The Prefect of the Pas-de-Calais has presented to the Council-General of that department an interesting report on the progress of coal mining in the district. He states that in the Liévin concession the Liévin pit is being deepened until it has now attained a depth of 923 ft. At the new level of 817 ft., in which the working is now concentrated, the southern bowette, prolonged beyond the Sophie vein, has successfully cut the Forest, St. Pauline, and St. Victor beds, known at a depth of 670 ft. The extraction was principally effected in the St. Sophie, Forest, and St. Pauline veins during the season of 1864-5; and the coal being treated more easily, while more veins were attacked, the production of the pit was increased last year. A branch railway, which is to unite the Liévin pit to the local colliery lines at the Lens station, is in course of execution; it will greatly facilitate the delivery of coal from this pit, and dispense with very costly and laborious operations in that regard. With reference to the Aix pit, the Prefect states that an application for indemnities for useful works prosecuted by the Aix Company against the Liévin concessionary company is still pending before the Council of the Prefecture. In the Douvrin concession the Haines pit, after an idleness of two years, regained a certain activity towards the close of November, 1864. The depth of the pit has been increased. At the old stage, at a depth of 593 ft., the production of the bowette to the south has led to the discovery of a depth of 460 ft. of a new vein, called No. 6, and having an effective thickness of 12 in. Working operations prosecuted for the last two months in this vein have led to the daily production of about 20 tons of coal, which constitute the present extraction of the pit. The Cauchy-la-Tour pit now presents a total depth of 1052 feet, but working operations are at present concentrated at levels of 820 ft. and 916 ft. in the south-eastern district. The proximity of the limits of the concessions of Ferlay and Maries checks all development towards the west and north. The working operations now prosecuted refer exclusively to the two veins known as the St. Louis and the Midi; these beds present great variations as regards their productivity. Nevertheless, in consequence of an extension of works, the production of the pit has increased, and the extraction has now attained an average of about 85 tons per day. The works of exploration prosecuted during the past year in the Pas-de-Calais have been of less importance than those effected in preceding exercises. At the same time, three companies are still carrying on operations of this description. That of M. Lebreton-Duillet has undertaken three soundings, of which one only has attained a depth of 500 ft.; the two others are scarcely commenced, and are carried to a depth of less than 60 ft. Another exploratory company, which has taken the name of the Eclaircisseur Pas-de-Calais, has undertaken a new sounding, the results of which appear hitherto to have been of a negative character. It has been a long time applying to the Government for a concession, which the results acquired have not yet enabled it to secure. The third company is the Midi de l'Eclaircisseur, which prosecuted some works, interrupted in 1862, towards its old No. 1 sounding of Courcelles-lez-Lens, but was obliged to suspend operations in presence of a decision which rejected its application for a concession. It has since undertaken a new sounding on the territory of the commune of Frennes (Nord). To turn now to the Frennes and Hardingham concession, it may be stated that at the Providence Pit the working was being pursued in veins Nos. 7 and 8, under the conditions indicated in a report for 1864, when a great accident happened. The precautions taken to isolate on the one hand the calcaire of the surface and on the other the old works of the neighbouring pits, seemed to remove the eventuality of a rough fall of water. Nevertheless, this unfortunate circumstance occurred on the night of November 6, 1865; and the waters took the course of ten days such a development that the pit had to be abandoned. At the same time, there was time to save all the plant, and to consolidate the principal galleries, as well as the environs of the pit. While waiting for the establishment of a fixed engine of very great power, the Frennes Company, proprietor of the concessions of Frennes and Hardingham, proposed to make use of temporary means of drainage. The Renaissance Pit, situated at a distance of 1087 feet to the south of the former, was furnished in 1863 with a drainage engine; by this means it has been enabled to reduce the level of the waters which filled this pit, and to keep them at a depth of 466 feet, while operations have been carried on at a working stage at a depth of 433 feet. A northern bowette has re-cut, at a distance of 130 feet, the vein No. 7, part of which had been worked in the Providence Pit. The works commenced in this vein, which has an average thickness of 30 inches, have been suspended by an accumulation of infiltration water. Measures are now being taken for the removal of this water.

Chilian copper has remained almost in the same position at Havre as at the close of last week. The sale prices have ranged from 97l. or 99l. The German markets have been less affected than might, perhaps, have been expected by the last reduction in prices decided on by English founders; as a general rule, quotations have been maintained without variation. There have been comparatively few transactions in tin. At Amsterdam and Rotterdam, Banca has been held at 67½ to 57½, without any very striking affairs; on the latter markets 1050 ingots have changed hands, however, during the last few days. The annexed comparative table shows the deliveries and stock of Banca on the Dutch market during the last five years:—

Month.	1861.	1862.	1863.	1864.	1865.
January.....Blocks	4,123	5,105	9,335	8,165	4,230
February.....	10,137	8,465	8,665	9,190	4,987
March.....	9,500	4,335	7,650	6,085	9,640
April.....	9,188	6,766	4,698	6,377	5,660
May.....	4,560	9,400	4,700	6,443	5,890
June.....	29,920	4,650	4,000	9,172	5,900
July.....	29,920	34,400	14,757	25,285	27,297
August.....	46,731	30,637	29,764	55,520	33,611
September.....	12,261	12,119	6,453	13,950	9,450
October.....	7,067	12,392	6,816	9,600	10,410
November.....	12,655	7,265	8,150	4,318	12,200
December.....	8,057	8,950	4,132	4,128	12,600
Total blocks.....	160,491	139,424	112,792	155,562	139,976

The stock on schedules Dec. 31, 1865, was 98,859 blocks, as compared with 68,907 on Dec. 31, 1864; 77,538 Dec. 31, 1863; 69,740 Dec. 31, 1862; and 55,971 Dec. 31, 1861. The unsold stock of the Society of Commerce Dec. 31, 1865, was 39,770 blocks, as compared with 72,404 Dec. 31, 1864; 52,966 Dec. 31, 1863; 61,928 Dec. 31, 1862; and 73,238 Dec. 31, 1861. Affairs have been inactive at Hamburg, and prices remain without change. On the other German markets there have also been but few variations. At Paris there has been little business in tin, and prices have displayed a downward tendency. There is no material change to note in lead. There has been a slight improvement in zinc on the Bremen and Hamburg markets; on the latter market zinc has

especially regained firmness for spring delivery; at Breslau the situation has been satisfactory, and there has been rather an improved tendency. The Paris market has been quiet; rough Silician remains quoted at 22l. 16s. per ton.

## REPORT FROM SCOTLAND.

GLASGOW, JAN. 2.—It is extremely gratifying to open our report with the announcement that the demand for Pig-Iron is in excess of the supply by 108,000 tons per annum; and this fact, coupled with the wonderful expansion of the home trade, and the return of peace in America, cannot fail to exercise considerable influence on the price of metals, and may induce a higher range of prices than has been experienced for years. In what remains of the stock on hand there is very little of what is known as "g.m.b.," and as it is mostly in the hands of outsiders, in the shape of "warrants," it is likely to be held for as high a figure as the market will bear. The price of warrants at the beginning of the year was 49s. 9d.; at its close, 65s. 3d. The lowest point touched was 49s. 4½d., in January; the highest, 65s. 6d., in December; and the average for the year is 54s. 9d., against 57s. 3d. in 1864.

The shipments coastwise and by rail for the year show an increase of 22,853 tons, while our foreign exports have increased 41,735 tons, the whole of which, and rather more, has been taken by Germany and Holland, the increase to these countries being 45,477 tons. To France there is an increase of 7011 tons; to Denmark, &c., 1542 tons; while to Belgium, small at best, the returns show 5990 tons, against 1940 tons. On the other hand, the United States have taken less by 5942 tons; British America, by 4776 tons; Italy, by 2372 tons; and Russia, by 4265 tons.

While such is the result of our principal shipments, our local consumers are by far our best customers, inasmuch as they last year absorbed 531,500 tons of pig-iron, which was an increase of 51,500 tons, irrespective of 18,700 tons imported from England. This will convey to distant readers some idea of our local trade in iron manufactures, and the orders still in the hands of our founders and malleable iron workers give indication of a higher consumption being required for the year just opened.

This year the market has opened with a large speculative business in pig-iron warrants, but the buyers are chiefly operators from the South, who are buying in the expectation that high—perhaps I should rather say extravagant—prices will prevail during the year. A quantity of second-hand bars was bought for forward delivery at high prices at the close of the year, and the purchasers are now disappointed that first-class makers have not declared an advance of 10s. per ton, as was anticipated, which has rather staggered business, and things are quiet for the nonce. Shipbuilding iron is required for, and plates are offered by makers from the South rather under the quotations current here. First common bars, 8l.; second ditto, 7l. 17s. 6d. to 8l.; nail-roads, 8l. to 8l. 10s.; angle-iron, 8l. 5s. to 9l.; plates, 9l. to 11l.—less usual discount.

The Pig-Iron market continues animated. On Thursday and Friday, last week, prices declined to 64s. 1½d. cash, but have since advanced, and to-day 65s. 9d. cash, and 66s. and 66s. 1½d. a month, paid; the close was, however, easier, sellers 65s. 7½d. cash, and 66s. a month. Makers' iron, No. 1, g.m.b., 64s. 9d.; No. 3, 64s.; Gartsherrie and Coltness, 68s. The exports from the Scotch ports were 12,573 tons, against 10,831 last year.

The Coal Trade is very steady, but shipments are beginning to fall off. The exports to date are 23,700 tons against 33,000 tons in the corresponding week last year. The shipments are now principally for the Mediterranean ports.

With the opening of the year, the Caledonian Railway Company have opened a short line to the manufacturing village of Busby.

During the last few days we have been visited by a succession of severe gales, which have not been equalled in this part of the country for several years. Very considerable damage has been done to the shipping in the Clyde, the tide having overflown its banks in several places, and the workmen engaged in feeding the blast-furnaces of the ironworks have with difficulty maintained their position, and in the Coast-guard district they had to beat a retreat when the gale was at its height till its violence had abated. The gale was last night rising and falling every hour. This morning the storm moderated, and it is now a calm.

Yesterday a composite sailing ship, of 630 tons, was launched at Overnewton, on the Clyde, for the Atlantic and Glasgow Shipping Company, and the keel of a sister ship is to be laid down on the vacant berth.

CLYDE SHIPBUILDING IN 1865.—The year just closed has been a most propitious one for Clyde shipbuilders, and the year which has opened has had placed on its roll a number of contracts, which renders its beginning most auspicious. During the year there were launched 267 vessels, of 158,300 tons and 24,040-horse power, besides engines of 7000-horse power for vessels built elsewhere. These vessels may be aggregated thus—

Class of vessels.	Number.	Tons.
Paddle steamers.....	47	29,600
Screw steamers (iron).....	169	82,700
Screw steamers (composite—ribs & frames of iron; outer skin, wood).....	10	890
Screw hopper barges.....	10	3,410
Screw iron-clad ram (war vessel).....	1	4,200
Steam dredger.....	1	300
Sailing vessels (iron).....	38	19,900
Sailing vessels (composite—ribs & frames of iron; outer skin, wood).....	17	12,000
Sailing vessels (wood).....	19	4,000
Miscellaneous.....	24	1,800
Total.....	267	158,300

In addition to the above, there are in different stages of forwardness, or about to be commenced, 180 vessels, of 130,135 tons—a fact which evinces that the shipbuilding trade of the Clyde is at the present time about as prosperous as when—stimulated by the speculative demand for very swift steamers for eluding the vigilance and the speed of the vessels which formed the American squadron of blockade-builders were forcing forward their ships for launching with great expedition, and pocketing the reward in the shape of the high prices current for vessels of this description. It will be observed that the vessels launched were of diverse size and shape—from the bare and tiny lighter and trim yacht to the magnificently fitted up steamer and the formidable ram. The majority of these ships have found their way to ports in both hemispheres, while a proportion of them have been added to the merchant navy of the country. One also does duty as a war ship to a neighbouring point. Others are used for deepening operations on navigable rivers, and a host of small craft are being used for pleasure or coasting purposes. "Britannia rules the Waves!"

## REPORT FROM NORTHUMBERLAND AND DURHAM.

JAN. 4.—The demand for Coal and Coke here, at the commencement of another year, is extremely good, and prices are still advancing. On Saturday the enquiries for coke were very numerous, and the ordinary price quoted was on Newcastle Quay 15s. per ton, but higher prices could be got providing the cargo was promised to be quickly loaded, as much as 17s. per ton being offered, the time for loading the cargo being limited to two days. The demand for coal is equally brisk, and the prospect for the present year for coal and iron masters is certainly most cheering. The demand for coal and coke is particularly brisk, and the demand for iron is also very good, especially for pigs, and prices are consequently advancing. All kinds of iron, both raw and manufactured, may be expected to be higher, unless the production be largely increased, and that is scarcely possible in the present state of the coal and coke trade.

The Tunnelling Machine lately tried at the Claxton's Quarry, Gateshead, is the invention of Captain Penrice, of London. In all the trials of this ingenious machine made hitherto it has given great satisfaction, and, indeed, so far as the engine and other apparatus is concerned, there does not appear to be any doubt of its entire success, the only difficulty apprehended, which can easily be overcome, is with the cutting chisels. But preparations are making for a final trial, which will settle the question, and Sir Charles Fox, and other eminent men, are expected from London, to witness the trial, and report on the machine.

A number of men, boys, and women have arrived at Cramlington during the last week, and a large Cornish colony is rapidly forming there. The total number of Cornishmen now employed is about 300. Of course, it cannot be expected that those men can produce the same amount of coal as the old experienced hands, but it is satisfactory to know that many of them are doing good work, and the best of them are getting as much coal as some of the ordinary hands formerly got. One of the Cornishmen named Elijah Oates, was charged before the county magistrates, in Newcastle, with absconding himself from the employment of the Cramlington owners, he being engaged to serve the said owners for one year, with liberty to leave at the end of four months by giving one month's notice. It was shown that Oates had accepted 50s. from the Union men, and promised to leave the work. He had also tried to induce others to follow the same course. He was sentenced to three months' hard labour in Morpeth House of Correction.

A melancholy case of suffocation from choke-damp occurred at the Bonwell Fire-clay Works. The drift in which they worked is connected with some old workings in the Low Main Seam, by means of a staple, and when the barometer is low a great escape of choke-damp takes place from these old workings. The unfortunate man, with another workman, had been exposed to this gas for some time, and lost its life in consequence. The jury returned a verdict in accordance with the circumstances.

A company has been formed to win and work an extensive colliery a little to the north of Ryhope. The site, indeed, is very near the South Docks at Sunderland. The scale on which the works are projected is most extensive, the royalty secured being 2000 acres, and extending to a distance of two miles under the German Ocean. Should the seams found at Ryhope extend under this royalty in the same state, which there is every reason to expect, an immense quantity of coal will be got, and an almost inexhaustible quantity got under the bed of the sea.

The depth at which this coal lies under the sea precludes the possibility of the water from the ocean escaping into the workings, the depth being about 2000 feet. It is also a most favourable circumstance in connection with these deep workings that little water is met with in the strata, so that engine-power is only required to raise the coal. When it is considered that from 200 to 800 gallons per minute is commonly lifted from the shallow workings of one colliery in the western part of the county of Durham, this is a most important advantage connected with deep workings.

The Ryhope Colliery, near Sunderland, has been most successful—a splendid seam of coal having been won there, and already it has been worked extensively, 1000 tons of coal being now raised per day. This coal is got from one large shaft, the second shaft being now in course of sinking, the same having been successfully passed through in this second shaft by the same process as was adopted in sinking the first one—by lifting the feeders of water before reaching the sand, and tubing the whole back afterwards by strong cast-iron tubing.

A few days ago a number of the workmen of Thornley Colliery and friends assembled to present to Mr. Thomas Bell, viewer of the colliery, a gold watch, chain, and appendages, and a crust-stand, together with a beautiful diamond and emerald ring for Mrs. Bell. The watch bore the following inscription:—"Presented to Mr. Bell by his workmen and friends at Thornley Colliery, as a mark of their deep respect and esteem. December, 1865." Mr. John Landers, overman, made the presentation on behalf of the subscribers.

Mr. John Sim, of the West Cramlington Colliery, asks—What is a Shale Heap? And what possible interest does it present worthy the attention of the readers of "The Mining Journal"? To the first question I answer: A large heap of refuse will be found at all collieries; but the shale heap is only found at those collieries working the low main bed of coal, and is formed principally of a black slaty stone—hence its name—which immediately overlies the above-mentioned bed of coal, varying in thickness at different collieries in this district. It will be found at Dudley and the Cramingtons to run about two inches in thickness, although I have fallen in with pieces at Newsham Colliery more than four times that thickness. To the second question: The shale heap is interesting to the naturalist and the collector of fossils for microscopic objects. Vegetable fossils will occasionally be met with, but it consists chiefly of fish remains, such as jaws, spines, teeth, scales, and loose bones. For a very obvious reason, jaws and spines are not so readily met with as teeth and loose bones. Some very fine specimens, however, of jaws have been found, varying considerably in the number of teeth attached to them; but when ground and mounted, and examined through the microscope, present a most beautiful and interesting object. In no instance have I found, in my few years' experience as a fossil seeker, among this shale the slightest trace of the impression of a fish; while in the thin dark-blue layer of stone, which crops out at the Craig near Cultercross, they appear to be common; the impression found there is placed on the stone in a most excellent manner. But no jaws, teeth, or scales, to the best of my knowledge, are found there. On two occasions, lately, parties of gentlemen from Newcastle and South Shields paid a visit to the shale heaps at Dudley and the Cramingtons, with leather bags suspended from shoulder, hammer and chisel in hand, splitting and breaking and splitting again until a bone, tooth, or jaw was found, which was immediately bagged, with as much interest as a disciple of Isaac Walton would treat a member of the flinty tribe just drawn from its native element, to the no little amusement of the youngsters, and to the utter amazement of several of the seniors, of the colliery village, as to what the gentlemen could want or find among the black stones on the pit heaps, although there are others courteous and willing to assist them whenever they come.

## REPORT FROM MONMOUTH AND SOUTH WALES.

JAN. 4.—The new year has commenced under favourable circumstances as regards the staple trades of the district, and if it continues to the end as it has commenced, there will be no room for complaint. The Preliminary Meeting of the Ironmasters has resulted, as was generally expected, in a determination not to interfere with prices, a course which the most experienced makers deem best under the circumstances. There is a large demand from the continental markets, and now that quotations are settled for the quarter, buyers are beginning to give out their orders freely. Contracts on American account are being pushed forward vigorously, and agents are evidently afraid that the Government of the States will adopt the unwise course of increasing the import tariff. The Eastern advices are more favourable, and considerable orders for railway iron for the Indian lines are confidently looked forward to. The home market is in a fairly satisfactory state, and with the exception of plates, there is a good demand for nearly all descriptions. Remarkable firmness characterises the Pig-Iron Trade, and not an engagement is entered into below the full current quotations. In tin-plates there is more activity evinced, and there have been numerous enquiries of late from Liverpool and Manchester buyers, and the result is an advance of 1s. per box. The quarterly meeting is to be held this week at Gloucester, and it is expected that a still further rise will then be determined upon. Steam coal proprietors are full of business, and there is considerable difficulty in obtaining a sufficient supply from the collieries, the men not having yet altogether settled down to work after the Christmas holidays. Many of the house coal proprietors complain that the demand is not so active as anticipated, and in some instances a decline has been submitted to.

A petition has been presented for winding-up the United Merthyr Collieries Company (Limited). The company possess several collieries near Aberdare, including Forchman, Cwm Neol, &c.

It will be remembered that a few months since a company was promoted under the title of "The Great Western and Fowler's United Collieries Company," the object being to purchase Messrs. Fowler's collieries, and thus render the Great Western property a more valuable one. Several of the directors of the Great Western Colliery Company were on the board, and it was thought at the time that the company was a complete success. Certain difficulties, however, arose which prevented the undertaking being carried out as originally expected, and the result is that Messrs. Fowler's collieries have not changed hands. A Manchester cotton-spinner has bought up nearly all the shares in the Great Western at a premium, and there is every likelihood that he will shortly be the sole proprietor.

The Pontnewydd Iron Company (Limited) is now in course of winding-up in the Court of Chancery. The works have been at a stand-still for a long time, and the rumour that the Ebbw Vale Company (Limited) are desirous of purchasing the property has not yet been verified.

In previous reports reference has been made to the proposed scheme for crossing the Severn at Lydney, which will shorten the distance between the coal fields of South Wales and the Forest of Dean and London by about 40 miles. It is authoritatively announced that the Great Western and Midland Companies have agreed to abandon the two bridge projects which received parliamentary sanction last year—the Severn Junction, and the High Level—and it has been determined to adopt the Lydney Bridge instead, and make it a joint one between the two great companies. The large freighters of South Wales and the Forest Crown authorities have, it appears, expressed their approval of the scheme, and the engineers of the two companies are to visit Lydney in a few days, in order to arrange as to the approaches and other details. The colliery proprietors of South Wales attach great importance to the project, for it will enable them to send coals to the metropolitan markets at 3s. to 4s. per ton less than at present.

Negotiations are in progress for the purchase for the Cwmbran Works by the Patent Nut and Bolt Company (Limited), of West Bromwich. The works consist of two blast-furnaces, now in operation, and several collieries, and the same have been worked for a number of years past by Messrs. Roper and Co. The Patent Nut and Bolt Company, which is a highly prosperous undertaking, has already the Cwmbran Forge in their own hands, and by securing the furnaces as well, they will possess an admirable establishment at Cwmbran, with every convenience as regards railway and canal accommodation.

Mr. Evan Roberts, mechanical engineer of the Briton Ferry Ironworks, has been presented with a testimonial, consisting of a gold watch and chain, of the value of 28 guineas. Mr. J. D. Baller, who filed the chair, has been employed at the works from their commencement. The testimonial was inscribed as follows:—"Presented by the workmen of the Briton Ferry Ironworks to Mr. Evan Roberts, mechanical engineer, as a token of their esteem and respect.—Christmas, 1865."

The arrivals at Swansea include—The Rose of England, from Talit, with 410 tons of copper regulus and 167 tons of copper ore, for H. Bath and Sons. The Louisa, from Alicante, with 80 tons of silver ore, for Dillwyn and Co. The Epel, from Genoa, with 150 tons of copper ore, for H. Bath and Sons. The Paleopce, from Cagliari, with 325 tons of lead ore, for H. Bath and Sons. The Beatrice, from Caldera, with 159 tons of copper ore and 95 tons of copper regulus, for H. Bath and Sons. The Delaware, from Caldera, with 550 tons of copper ore, for H. Bath and Sons. The Europa, from Alicante, with 202 tons of silver ore, for Dillwyn and Co. The Gloria, from Aveiro, with 176 tons of copper ore, for Richardson and Co. The Sarah Ann, from Carlfort, with 440 tons of lead ore, for H. Bath and Sons. The Admiral Fitzroy, from Caldera, with 485 tons of silver ore, 38 tons of copper regulus, and 44 tons of copper ore, for H. Bath and Sons. The Joseph Thompson, from Pande Azuka, with 627 tons of copper ore, to order. The Eva, from Carlfort, with 140 tons of lead ore, for H. Bath and Sons. The Caroline, from Malaga, with 250 tons of zinc ore and 2 tons of copper ore, for H. Bath and Sons. The Deerslayer, from Caldera, with 416 tons of copper regulus, for H. Bath and Sons.

THE TIN-PLATE TRADE.—The Quarterly Meeting of the Members of the Trade was held at the Bell Hotel, Gloucester, on Wednesday. Mr. Woodruffe, of Machen Works, Monmouthshire, occupied the chair. About 20 makers were either present or represented, and such was the importance attached to the meeting that some of the large Liverpool buyers also attended. After the usual exchange of opinions between the members, it was resolved to advance prices 2s. per box, making charcoal 33s. per box, delivered at Liverpool, and other qualities in proportion. An exceedingly cheerful tone pervaded the entire meeting, and it appears that there is an excellent demand for all descriptions of plates. The future prospects of the trade were stated to be unusually encouraging, and the general opinion prevailed at the meeting that but few makers will sell largely even at the advance of 2s. for a still further rise is confidently looked forward to before long. The American advices are decidedly favourable, and from the other foreign as well as the home markets there is a brisk enquiry. The members, as usual, dined together after the meeting, which was one of the most successful ever held. Mr. James (Phelps, James, and Co., Liverpool) stated at the dinner table that he considered the members had taken a sound and moderate view of the present position and future prospects of the trade, and that the advance of 2s. per box was more than justified by the increased requirements of buyers, the rise in tin, and the increased cost of labour.

THE GETHIN COLLIERY EXPLOSION.—The inquest on thirty-two bodies of the men killed at the recent explosion at Upper Gethin Colliery, and which was formally opened on Dec. 21, was resumed on Wednesday morning at the Bush Hotel, Merthyr. On the assembling of the jury, Mr. T.



Williams, Deputy-Coroner, informed them that the proceedings of that day would only be of a formal character. The fact was that, despite the efforts made by him, the evidence necessary to be laid before them was not yet in a complete state. It, however, had been, there was another cause to render a further adjournment necessary. The Home Secretary had directed Mr. Lionel Brough, the Government Inspector of Mines for Gloucestershire and Monmouthshire, to act in conjunction with Mr. Wales, the Government Inspector of Mines for South Wales, in examining the pit, and ascertaining the cause of the calamitous explosion, but that gentleman was too unwell to attend. He (the Deputy) would do all in his power to have the evidence as full and complete as possible, and properly laid before them, so as to save their time. He, therefore, proposed to adjourn the enquiry till 10 o'clock Tuesday morning, Jan. 9, and he hoped by meeting thus early they would be able to close the case by the end of the week. The adjournment was accordingly ordered. Through the liberality of Mr. Crawshaw the sufferers are receiving weekly relief, similar to the sufferers by the Lower Gethin explosion, which occurred about four years since. Nothing definite has been done with regard to a public subscription.

**ABERAVON.**—Monday, Jan. 1, 1866, was a gala day in this town and neighbourhood, when the foundation stone of a new tin works was laid. The inhabitants and visitors were to be seen almost at dawn of day in groups, all on the alert awaiting the important event, while from the windows of many houses could be seen the joyous flags with streaming ribbons gallantly fluttering in the wind. About 12 o'clock the boom of the cannon reverberated through the air, and was kept up for some hours. The ceremony was performed by Mr. Thomas Jenkins, jun., Talbot-square, Aberavon, amidst the most deafening shouts of huzzas from the large concourse of people present. When the cheering subsided, Mr. Thomas Jenkins, sen., late manager of the Margam Tin Works, who is at the head of the company, mounted the stone, and said he felt glad to see so many familiar faces present, to show their good wishes to himself and the other members of the company, and thanked them heartily for the warm and enthusiastic manner in which they had received the approval of the enterprise, one which will prove reciprocally beneficial, although its original aim was the gain of himself and the other members of the company, yet he was certain that the benefits would be mutual, for wherever a large amount of capital was invested there would necessarily be a demand for labour. The speaker was several times interrupted by the cheers of the crowd, and concluded amidst the most enthusiastic shouts and huzzas, which continued for several minutes. Short speeches were also made by Messrs. B. M. Davies and John Richards, when it was announced by Mr. Thomas Jenkins that good cheer would be given by the firm to the men, to which Messrs. B. M. Davies, John Richards, and William Powell contributed. The works will be erected on a field adjacent to Port Talbot, the property of Mr. Wm. Powell, Eglwysbury, Margam, who has granted a lease for 99 years thereon. The firm is to be designated the "Port Talbot Tin Plate Company."

#### REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

**JAN. 4.**—Throughout the iron and coal districts of Derbyshire trade has scarcely ever been in a more healthy state. The demand for coal, more particularly, has greatly increased during the past two months, owing, in a great measure, to the inability of the South Yorkshire colliery proprietors to supply their customers, the men in that locality working only half-time. Another reason for the present prosperity is to be found in the fact that the carriage-rate to London from Derbyshire is 1s. 9d. per ton less than from the Yorkshire district. The Cobnab Colliery (the property of the Midland and Silkestone Colliery Company) was put up for sale on Friday: there was a very good attendance, but no apparent purchasers, so that the property was bought in, there being scarcely an offer approximating to the reserve price, which was 11,000l.

The demand for all qualities of iron in the Yorkshire fields has been brisk, grey forge pig, in particular, being in good request, whilst for foundry pig large sales have been effected for spring delivery. Unfortunately of late the trade in some of the best districts has been much crippled, from the want of sufficient wagon and engine-power. This applies more particularly to the Cleveland district, where the mineral wealth, in a very few years, has developed itself in an extraordinary degree. In 1860 the district produced about 500,000 tons of pig-iron, whilst in the year 1865 the quantity made amounts to fully 1,000,000 tons, causing, as a matter of course, a corresponding increase in the quantity of manufactured iron produced, with the introduction of much capital as well as labour. The business appears to be advancing in a still greater degree, for just now several new furnaces have been blown in and tapped, whilst others are in course of construction.

In South Yorkshire business continues brisk, so far as the demand for iron is concerned, bars, rails, and merchant iron being in good request, whilst there is a much better enquiry for ship-plates than for some time past. During the American war the latter business was very good, but on its termination there was a marked falling off; but now matters are changing, and that very important branch of the trade is fast assuming something like its old proportions. The heavy Sheffield trade continues brisk; whilst the enquiry for Bessemer and other qualities of steel keeps makers fully employed, the American and other foreign markets having recently sent large orders in.

The Lords of the Admiralty have accepted the tender of Messrs. John Brown and Co., of the Atlas Iron and Steel Works, Sheffield, for the manufacture of rolled armour-plates of 8-in. and 9-in. in thickness for the new iron-clad frigate *Hercules*, about being commenced at Chatham Dockyard. Another order received at Chatham also states that their Lordships have likewise accepted the tender of Messrs. Cammel and Co., of the Cyclops Works, as well as that of the Mersey Iron Company, for the manufacture of the 6-in. plates required for the *Hercules*. The contract price to be paid for the 8-in. and 9-in. plates is 33s. per ton, and for the 6-in. plates 29l. 10s. and 29l. 5s. per ton.

There is little alteration in the position of the South Yorkshire coalmasters and their men. The offer of the Association to give 5 per cent. advance until they meet has been refused. The men have stated their willingness to accept 5 per cent. unconditionally, with weekly pay, considering the latter nearly as important as the 5 per cent. The Wombwell Main Colliery is the only one connected with the Coalowners' Association which has conceded the terms, and the men resumed work on Tuesday. At the Darley Main the men are on strike, having brought out their tools on Saturday. At some twelve or fourteen other collieries the men are working on the restrictive system. The result of this state of things is that the trade is going into other districts where strikes do not prevail—or, at least, where they are not of that chronic nature which characterises South Yorkshire; for since 1860 scarcely a year has elapsed without a disagreement between the masters and their workmen, generally ending in a strike or lock-out.

There is a good deal of activity at the extensive ironstone field on the Lincolnshire side of the Trent, near the South Yorkshire Railway, and large quantities of ore are being forwarded to Derbyshire and various parts of Yorkshire. There has been, however, a great deficiency in the supply of coke, the trade in the neighbourhood of Barnsley being by no means equal to the requirements of the trade. During the past week the Frodingham Company have commenced burning at Silkestone, at the extensive range of ovens close to the railway station.

The year 1865 will long be remembered in the annals of the coal trade in connection with the various railway schemes which came before Parliament. The one which created the greatest interest, and no small excitement, was the Eastern Counties Extension, which proposed giving a new route from London to the Yorkshire coal field. The company also proposed to carry coal to London (and through parts of Cambridgeshire and Lincolnshire) at a farthing per ton per mile. The effect of such a low carriage rate would have resulted in the inhabitants of the east-end of London having their coal at from 2s. to 3s. per ton less than they now pay. The Great Northern, who enjoy the monopoly from South Yorkshire to London, became alarmed at so bold a proposal, and at so powerful a rival seeking for power to compete with it. Every effort and no expense were spared to defeat the bill. The Midland, the London and North-Western, and the Great Northern Companies, who had long been fighting one against the other, agreed to sink their differences for a time, so as to crush the Eastern Counties scheme. The result is well known, and will long be remembered, from the wide-spread dissatisfaction it elicited from the public and the press, that men should combine and legislate for private interests in opposition to what was for the benefit of the whole community. It is needless to say that the coalmasters were great sufferers by the defeat of the bill, as the new route would have opened out entirely new markets for their produce, at the same time developing the mineral wealth of the district. Mr. Beale (of the Midland), the Member for Derby, who for some time before had been unable to attend to his parliamentary duties, voted against the bill. Since then he has lost his seat, and he now finds the people of Derby agitating for the introduction of another line into the town, so as to be released from the monopoly of the Midland. It is to be hoped the inhabitants of Derby will be more successful in their endeavours than their Yorkshire neighbours.

The past year has been remarkable for the number of limited companies which have been formed in connection with the coal and iron trade. Out of the lot there have been but few failures. The Chesterfield and Midland Silkestone may be classed as a failure now, but when the calculations of the original promoters are considered, no wonder that the company should stick fast for want of capital. There are some good leases of minerals, and an excellent plant; but what gave the quietus to the working of the colliery was the large amount of borrowed capital upon which interest was accruing, and ruining up the concern in expenses. If the promoters had started with ample capital the probability is that they would have had a valuable property, but the result now will be that the concern will be taken up by a new company, and with renewed energy and ample means they will bring the Chesterfield and Midland Silkestone to a successful point. Another concern which has not answered the guaranteed anticipation of the vendor is the Whittington Estate and Colliery, which was the property of the late Rev. W. M. Pierce. It was always a wonder to those professionally engaged in mining what the motive could be for a gentleman in holy orders entering upon so responsible an undertaking as coal mining, and it is the opinion of many that much valuable capital was thrown away in the carrying out of impracticable details in connection with the works. No doubt is entertained that Mr. Pierce expended a large sum of money in the development of the works, but it is equally true if the capital had been laid out under the direction of an eminent mining engineer the result would have been different. The formation of this company affords a slight illustration of the machinery which can be worked in London for company mongering. When the prospectus was advertised very few indeed of the capitalists within a circle of 12 miles of the colliery would subscribe for shares. Mr. Pierce, finding that local capital was not available, opened an office in Graham House, London, and retained a staff of the company promoters so numerous in that building, and the scheme was launched almost

exclusively with London capital. Mr. Pierce was determined to be out, and he, with a view to rendering everything as satisfactory as possible, gave a two years' guarantee that the concern should pay 10 per cent. which in reality had proved a delusion, and the whole concern is advertised to be sold. This may be said to be the gloomy side of the picture, but there is much to be commended in the formation and management of most of the other companies. The Stavely Coal and Iron Company, for instance, stand at the head of the whole list, and as the shareholders and directors are men of almost unlimited capital, we shall hear in due course of a further development of these wonderful works. Much of the present success of the company is due to their having succeeded one of the most remarkable men of business which Old England has ever produced—the late Mr. Richard Barrow, whose death will make the year 1865 memorable in that locality. Again, the Sheepbridge Works, a neighbouring company, has been tolerably successful, having paid 10 per cent. Park Dale Company and Charles Cammel and Co. have been, on the whole, successful, but the pride of place in Sheffield is the firm of John Brown and Co. (Limited).

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

**JAN. 4.**—There is no alteration to report in the state of the Iron Trade. Orders are not yet coming in to much extent, but there is pretty well to do, and decided confidence in the future. Pig-iron is firm, and transactions are reported at an advance of 2s. 6d. per ton on last quarter's sales. The fear that the American Congress may further raise the duties on the import of iron into the States is almost the only speck in the horizon; should that, however, be done, it will probably give vigour to the free trade agitation, of which there are some signs, though there seems no hope of the speedy strengthening in Congress of the voice of that party by the admission of the representatives of the late Confederacy. The Quarterly Meetings of the Iron Trade take place next week—at Wolverhampton on Wednesday, and at Birmingham on Thursday.

The quarterly meeting of the North Staffordshire Coal and Ironmasters' Association was held to-day, at the Railway Hotel, Stoke-on-Trent. Mr. Wragge was re-appointed Chairman for the ensuing year. The question of wages of colliers and ironstone miners was discussed, and it was argued that the price of iron, pig and manufactured, not being higher than when the present rate of wages was fixed, there was no ground founded on the price of iron for an increase of wages to colliers and ironstone miners; but it was admitted that the prices of coal for manufacturing and domestic purposes had improved, and as the pig-iron makers were desirous of including all their miners in any advance, it was resolved to raise the wages of coal and ironstone miners from 3s. 6d. to 3s. 9d. a day.

A sad accident happened at the Ward Colliery, Bloxwich, near Wall-sall, on Friday last. John Passant, a youth 16 years old, came up the shaft for a hammer at mid-day, and having obtained it, got into the skip again to descend. The banksman signalled to the engine-man, David Baldwin, who, under the impression for a moment that the cage was at the bottom of the shaft, ran to his engine and began to move it, not knowing that the skip was not at the bottom, but was too late. Over the pit was an apparatus designed to prevent the cage from going over the pulley in such cases, by detaching it from the chain, and hanging it in catches. Unhappily this did not work properly, for the cage was detached, but instead of being suspended by the apparatus it fell to the bottom of the shaft with the poor fellow, who was, of course, killed. The coroner's jury returned a verdict of "Accidental Death."

The Worcester and Birmingham Canal Navigation half-yearly meeting was held at Birmingham on Tuesday. The report stated that but for the failure of the embankment and the canal near Birmingham, in October last, the revenue would have been much larger than in the corresponding half-year of 1864. The traffic was interrupted for three weeks by the accident, and the cost of repair would be considerable. The Chairman said he anticipated no opposition to the bill now before Parliament for transferring the whole property to Messrs. McClean, Brasse, and Elliott, with a view of its passing into the hands of the company.

**BREAKAGES AT IRONWORKS.**—During 1865 serious losses have been sustained by masters and men, throughout South Staffordshire in particular, by stoppages consequent upon the breakages of machinery at the finished ironworks. To so great an extent has this loss prevailed in one case, that a number of the men employed at one of the works of a leading finished iron firm in South Staffordshire have, chiefly through it and the eight or ten weeks' play which occurred on the occasion of the strike and the lock-out, made only half-time upon the average of the year. These losses need not, however, take place in other rare instances. They arise out of a desire to conduct the works economically, but the result is the opposite. Ironmasters who have tolerably good foundries and funds of making most of the heavy castings to be laid down in their mills and forges, but the skill which they have usually at their control is insufficient to produce more than a portion of the castings required, and those the less important. The very best iron that can be obtained for mixtures cannot, of course, turn out wheels which, moving a forge and mill train, will work one into the other with an exactness which is desirable to prolonged and easy wear. To make up for the absence of perfect exactness, an amount of play is not unfrequently allowed which is most destructive to smoothness, a jolting being the result, which, increased when the iron is in the mills, becomes a source of making most of the heavy castings to be laid down in their mills and forges, but the skill which they have usually at their control is insufficient to produce more than a portion of the castings required, and those the less important. 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vaning strata proves the abundant transport of mud and sand by water; in other words, the conditions implied are as prevail in the swampy delta of great rivers. He also stated that the coal consists principally of the flattened bark of siliquid and other trees, mixed with *Cordillera*, &c., and other herbaceous debris; and that the Cannel Coal and Earthy Bitumen are of the nature of the fine vegetable mud which accumulates in the ponds and shallow lakes of modern swamps. In the succeeding portions of the paper the author gave details of the character and contents of the several beds of coal in the Joggins section, arranged in the order of Sir W. E. Logan's sectional list, and made some remarks on the genera of animals and plants which remains occur in the coal, and on their evidence as to the mode of its accumulation.

The following objects were exhibited:—A new form of Goniometer, exhibited and explained by Prof. N. S. Maskelyne, M.A., F.G.S. Bone from a Pest-bed near Wareham, Dorsetshire; exhibited by the Rev. J. H. Austen, M.A., F.G.S. Fossils from Trinidad and Anguilla; exhibited by R. Lechmere Guppy.

On Wednesday next, the following papers will be read:—1. "On the Origin and Microscopic Structure of the so-called Eozoon-Serpentinum," by Prof. W. King and Dr. T. H. Rowney; communicated by Sir R. I. Murchison, K.C.B., F.R.S., F.G.S.—2. "On the presence of Eozoon in the older rocks of Bavaria," by W. B. Carpenter, M.D., F.R.S., F.G.S.—3. "On the Origin of the Lake-basins of New Zealand," by W. T. Locke Travers; communicated by Sir C. Lyell, Bart., F.R.S., F.G.S.

#### PETROLEUM IN FLINTSHIRE.

Better conducted, and, I believe, better managed works than those of the Canneline Company I have never seen. They are high up the valley, close to the Coed-y-Talon Mine, whence are taken their supplies of Cannel; they have 40 retorts, and produce 10,000 gallons of oil weekly, having a 6000-gallon refinery in full work. They are about to put up some upright retorts, and are likely to come to grief upon that experiment. These oil retorts should be after models taken from the old gas retort—as near a D, or rather as near a half-egg shape as is compatible with capacity the better. Too much coal in the retort is like too large a pudding in a pot; you can't get the heat evenly through it. After all, how nearly is practical chemistry allied to mere cooking! This company had some difficulty at first in making experiments with retorts, and it is only since Mr. John Gibbon succeeded in their management that they have got quite through it. Their oil stands well in the market, and, as I hear, it is sold for the next two months at least.

The Mould Company, which lies just off the station, is one which is likely to achieve some distinction in petroleum manufacture. It starts with the latest and best improvements in retorts—the flattened ellipse, or half-egg shape, holding a large quantity (15 cwt.), but not in too large a mass, more widely spread, and so more evenly exposed to the surface action of the fire. These are known as "Strange's Registered Improved Retorts," of which there are twelve, with 24 furnaces, and only one chimney, a curiosity hereabout, where in many places we find two chimneys to each retort, causing a singular agglomeration—a crowd of brick columns all over the neighbourhood. These singular retorts, it is asserted, can "work" more coals than any similar number in any other works, each "charge" swallowing in from 14 to 15 cwt. The vapours issue from the top of the retort, and come down through a swan-neck pipe, with two valves, to the condenser, a long vat of sheet-iron, the top of which is kept at an adequate coolness for condensation, by a stream of water running over it. Each of these pipes has a double valve, the action of which prevents the water from passing from the condenser to the retort in charging, as well as relieves the condenser from any over pressure of steam. Twelve of these retorts require two men, who are called firemen, to charge them once in 24 hours, the time occupied in distilling the coal. These men work at day or night, being relieved alternately. Besides these, one man is employed to "back-up" the fire and break the coal, which must not be put in too large—say, not much larger than a man's fist. See, they open the door by "unluting" it, and unsewing the cross bar that drives it close up to the furnace mouth. The fire is raging within, but we can soon perceive that the coal is all dry bones—coke, in fact, with a reddish appearance and a metallic tinkle. This would be good coke for engine purposes, and would add some value to the saleable product, were it not that we want it here to burn the next charge, and so produce more oil and make more coke, and go on *ad infinitum*, producing and reproducing. By *infinitum*, of course, I mean that unattractive period known only to philosophers, who calculate that in 600,000 years we are all to sit shivering under a hedge-row, while the New Zealand steams away with our last scuttles of coals. The coke is drawn out, and the men throw in the charge (another 15 cwt.) with shovels, taking care to spread it well. The coke is then placed in the furnace under the retort, and the work begins again. At the back of the furnace we see the green thick fluid running down from the condenser to the tank.

Close by the larger works of the Coppia Company I came upon a compact works of 25 retorts, belonging to a gentleman, the son of one whose name and fame, in regard to the advancement of educational progress is second only—if second—to that of Lord Brougham. Each of his retorts were charged with from 12 to 14 cwt., in the proportion generally of one-third curly Cannel, one-third smooth, and one-third shale. From these proportions he produced 48 gallons of crude oil, worth about 8d. a gallon, he not "running it over," but selling it to refiners "naked," as it is called when merely produced from the coal. The three kinds of coal cost together for the 48 gallons about 11s. the wages 5s., which therefore made...

48 gallons at 8d. £1 12 0  
Cost ..... 1 5 0

Profit on each ton of coal consumed..... £0 7 0

Which, as a ton of oil contains 250 gallons, is about equal to 11s. 17s. per ton, not a bad profit on a mere rough process conducted by a stoker. The owner was polite enough to furnish me with the result, from chemical analysis, of 100 parts of crude oil as made from the three kinds of coal:—Cannel, 25s. per ton; smooth 17s.; shale, 7s. 6d. to 9s. From CURLY CANNEL (100 parts):—Essential oil (turpentine spirit), 15 per cent.; oil (burning), 45 per cent.; lubricating oil, grease, and pitch, 35 per cent.; loss, 2 per cent. From SHALE:—Essential oil (turpentine spirit), 15 per cent.; burning oil, 35 per cent.; lubricating oil, &c., 48 per cent.; loss, 2 per cent.

From SMOOTH:—Essential oil (turpentine spirit), 17 per cent.; burning oil, 45 per cent.; lubricating oil, &c., 36 per cent.; loss, 2 per cent.

From MIXED COALS: In certain proportions:—Essential oil, 17 per cent.; burning oil, 45 per cent.; lubricating oil, 36 per cent.; loss, 2 per cent.

The loss came off as gas, oil with water, silica, &c. The essential oil is equivalent to the petroleum spirit originally sold to a very moderate market for the purpose of adulterating naphtha, but now equal to naphtha in price. He said that the quarter barrels, as they were called, cost about 5s. each, and eight of them were requisite for a ton of oil. The consumer finds barrels, or they are charged to him. Thus, a quotation of 107. 10s. for oil would be 12s. 12s. or 13s. with the barrels. If, however, the maker finds barrels he charges 10s. per ton of oil, and the consumer pays for land all round for works is 10s. an acre, or 20 years' lease. They only make the lubricating oil, or "once run," here at present. The second distillation requires more expensive apparatus, and the profit of 4s. per ton, as it is, is sufficient to content them. I don't think they have any to sell here, for I did not see any barrels about. In fact, all through the district the story runs "All sold."

I cannot well see how it can be otherwise. The petroleum of Pennsylvania made an immense demand for itself. The light from it is so beautiful, so unlike the muddy yellow of the common oils, with a flame bright, clear, bluish, and white, all the ugly black blue that you see in the middle of a gas-light having been burnt out of it in the manufacture, or changed into pitch, or worked off into grease. Hence a preference demand for mineral oil. But this demand the petroleum springs could not supply; they soon ceased "flowing," neither have the petroleum wells as yet made up the deficiency, besides which they are uncertain in production, and any uncertainty prejudices the regular going transactions of commerce. Moreover, if a barrel of petroleum that was thrown up by nature for nothing cost only 2s. in Pennsylvania (they have now got up to 3s. or 4s.) to the wholesale dealer, it costs 21s. 11s. (now 22s.) for the barrel, and 2s. more to bring to England; so that, all things considered, it is cheaper to work petroleum from coal on the spot here than to get it for nothing in Pennsylvania.

And so the matter, as it stands, is much in our favour. We have the market, and can make sure of the coal to make the oil from, and therefore can be certain of a steady supply. At one time the trade seemed altogether in the hands of the Americans, but time, circumstances, experience, and taxation have brought about a knowledge of the fact that we can manufacture oil in our own country at a cheaper rate from our own coals, provided a supply of the right quality can be procured. This was the problem to be solved, and the solution of that problem has been worked out at the great works at the Mould, belonging to the Flintshire Oil and Cannel Company, where they are making one million and half gallons weekly. It is a curious fact that the quantity thus made is exactly 1-350th part of the petroleum oil produced in the United States.—Correspondent of Rylands' "Iron Trade Circular."

**WALLACHIAN PETROLEUM COMPANY.**—Great delay was experienced from lack of funds and other obstacles, and it was not until within the last month that the pipes arrived out, enabling the borers to drive through the sand, which was choking the bore. That difficulty is not yet completely overcome, yet at the depth at present reached—147 feet—over 9900 gallons of oil have already been obtained, the last advised yield being 3000 gallons in one week. The price at Vienna of refined petroleum is 52s. per ton, and as, at the actual yield of the company, the cost of raising, refining, and transporting to that market will not exceed 15s., the future profitable working of the enterprise is beyond a doubt, the more so, as, by reliable statistics, the importation to Great Britain from America, which in 1863 was 20,272 tons, fell in 1864 to 15,455 tons, and in 1865 to 6790 tons, the increased consumption in the United States, and the new uses continually discovered there for it, accounting for the increasing deficiency in exports, and leaving the field comparatively free for European enterprise. The management in Wallachia has been thoroughly remodelled, and brought under the most efficient control, and the judicious measures adopted of themselves, independent of the new source of wealth opened out by the anticipated success of the new system of boring, cannot fail to be fraught with excellent results.

**GAS FROM MINERAL OILS.**—The object of the invention of Mr. W. Kim, of Glasgow, is principally to produce gas, so that it may be employed in places to which it is difficult to convey coal. One kind of apparatus for producing the gas consists of a vessel to hold the oil, from the bottom or sides of which tubes project through which the oil is led by its gravitating power or otherwise, the falling drops are vaporised, and then conveyed through pipes in the ordinary manner. The oil may be vaporised in bulk instead of in drops, if preferred.

**STEAM-BOILER.**—The invention of Mr. James Connery, of Wilmington, U.S., relates to a steam generator, the fire-box of which is completely surrounded by a water-jacket. Suspended from the crown sheet of the fire-box is a cylinder, which communicates with the water space of the boiler. The outside diameter of this cylinder is much smaller than the inside diameter of the fire-box, and the annular space thus formed in the fire-box is occupied by a series of pipes, in such a manner that a very large heating surface is obtained, and the water is caused to circulate freely throughout the boiler. From the crown sheet of the fire-box rise a series of tubes through the upper part of the water space and through the steam space of the boiler; and by these means the heating surface of the boiler is still further increased, and the steam in the boiler is dried and partially superheated.

**GRADUATING LUBRICATOR FOR STEAM-ENGINES.**—With a view to produce a lubricator with few parts, constructed and arranged in a simple manner, and yet retaining the character of graduating the flow of oil, so that the operator shall be able to control it, and also containing a feed spring, independent of and separate from the valve-stem, Mr. John Broughton, of Water-street, New York, has invented an improved arrangement. Amongst other ad-

vantages is that the steam in the reservoir when it is opened is discharged in such a manner that the hand of the operator cannot be scalded, that the oil can be readily poured in, that the air can freely escape, that the reservoir cannot be filled without always leaving an air space at its top, into which the steam will rush when the valve is raised, and quickly equalise the pressure, and allow the oil to discharge at the bottom, and that there are no cocks or valves opening externally at the bottom of the reservoir to leak or waste the oil, nor any air passages or shifting cock at top.

**IMPROVED LOCK.**—Mr. Rudolph Vollachwitz, of New York, has invented an improved lock, which consists in combining with the sliding-bolt and lock-plate a small detachable case, containing the mechanism for locking and unlocking, from which a false bolt projects, the head of which is provided with holes to drop over studs or pins in the inner end of the shank of the sliding-bolt, in such a manner that not more than two holes are required in the lock-plate to receive pins or rivets, for the purpose of securing to the same the case containing the mechanism for locking and unlocking, and the same case can be used for lock-plates of different size, nothing being necessary for different sized locks but to change the length of the shank of the sliding-bolt.

**MINERS' SAFETY-LAMP.**—The invention of Messrs. Thorp and Young, of Barnsley, consists in a plate-extinguisher for safety-lamps. The plate is in the form of a ratchet-wheel, which spring-catches within the gauze take into it. The top can be screwed on in the ordinary way, but if the attempt be made to unscrew it, the plate is so moved that it covers the wick-tube, and extinguishes the lamp. They also claim a glass shield round the bottom of the gauze, to prevent currents.

#### SALES OF COPPER ORES.

COPPER ORES SOLD AT THE SWANSEA TICKETINGS FOR THE QUARTER ENDING DECEMBER, 1865:—

Mines.	BRITISH.	Tons.	Amount.
Berehaven .....	740	£ 6,502	0 6
Ballycunnisk .....	127	1,064	5 6
Cappagh .....	62	585	2 6
Tregony Precipitate .....	5	89	10 0
Total .....	934	£8,235	18 6
COLONIAL.			
Quebec .....	88	£ 1,139	12 0
Concordia .....	54	862	12 0
Newfoundland .....	83	718	7 6
Kurilla .....	22	278	11 0
Total .....	247	£2,997	2 6
FOREIGN.			
Cobres .....	625	£ 7,907	17 0
Bolivian .....	387	5,668	9 0
Laghor .....	64	997	0 6
Var .....	53	779	2 0
Genos .....	27	262	16 6
Casali .....	19	188	11 0
Terricio .....	9	165	18 0
Total .....	1184	£15,869	14 6
RECAPITULATION.			
Foreign .....	1184	£15,869	14 6
British .....	934	8,235	18 6
Colonial .....	247	2,997	2 6
Sundries, regulis, &c. ....	41	198	14 0
Total .....	2406	£27,321	9 6

COMPANIES BY WHOM THE ORES WERE PURCHASED.			
Freeman and Co. ....	161	£2,239	12 3
Grenfell and Sons .....	265	3,437	3 3
Sims, Williams, and Co. ....	469	3,076	13 9
Williams, Foster, and Co. ....	469	6,027	0 0
Williams, Foster, and Co. ....	656	6,295	9 3
Mason and Elkington .....	120	1,457	2 0
Bankart and Son .....	60	690	6 6
Charles Lambert .....	82	1,408	13 6
Ravenhead Copper Company ..	39	1,078	7 0
Sweetland, Tuttle, and Co. ....	73	848	12 6
Pencild Copper Company .....	191	1,724	8 6
Total .....	2406	£27,321	9 6

"THE IRISH INDUSTRIAL MAGAZINE."—Some time since we heralded the advent of a serial to be specially devoted to the subject of Irish Industries—we hailed the news as a step in the right direction, and we have now the pleasure to receive the first number. We can bear ample and just testimony to its merits, whether we consider it as a volume of well written and interesting matter, or in regard to the services to which it is specially devoted. It is fairly and calmly treated several of the Irish industries that have been sadly neglected—Mining, Fisheries, Water-power, Formation of Joint-Stock Companies, Pesticulture, &c. From what we have seen in No. 1, we assure that all these various national resources will be thoroughly ventilated. The subject of Irish Mining and Quarrying, which is our more immediate subject of attention, we know to be in the hands of a thoroughly practical writer; and, if we may be allowed to judge by the opening chapter, that interest, so unaccountably neglected by Irish capitalists in general, will be (as it deserves to be) brought prominently forward. The style of the work itself would do credit to any of our London magazine offices, the printing, paper, and other trade details are as good as can be. Our readers, on perusal, will find some names as contributors that will be readily recognised as being long acquainted with mining matters. We doubt not their efforts, as heretofore, will be truly acceptable, and become, as their titles imply, "Household Maxims." We cordially welcome the appearance of the "Irish Industrial Magazine," as the "right book at the right time," filling, as it does, a void in Irish literature, and we feel the interests it represents could not be in better hands, and have pleasure in recommending it to the notice of all who have an interest in the welfare of Ireland. In our advertising columns will be found particulars, price, &c.; and we understand no less than 10,000 copies have been issued.

"ADCOCK'S ENGINEERS' POCKET-BOOK."—The nature and value of the information given in Adcock's Pocket-Book is well known from the number of years it has been before the public. The lists of officers and members of the Institution of Civil Engineers, and of the Institution of Mechanical Engineers, and of the officers of the Society of Arts, Royal Society, and Royal School of Mines are corrected to the latest date; and the names, &c., of the Members of the New Parliament are inserted.

"SCIENCE GOSPEL."—The number of this useful little monthly for January well maintains its character, and continues what it was intended to be—a "medium of interchange and gossip for Students and Lovers of Nature." Stickleback's Nests, the House Spider, Imperfectly developed Plants, Vegetable Fibres, and the Moa in New Zealand are illustrated, and there are besides a large number of interesting little sketches.

"POPULAR SCIENCE REVIEW."—The January number of this magazine contains seven interesting original papers—Insects injurious to the Turnip Crops, by the Rev. W. Houghton; Coffee, by Baron Liebig; Australia and Europe formerly a Continent, by Dr. R. Semmann; Ozone, in relation to Health and Disease, by Dr. B. W. Richardson; Glaciers and Ice, by Mr. F. Barrett; the Phenomena of Motion, and Sensitiveness in Climbing Plants, by the Rev. G. Henslow; and on the Construction and Use of the Spectrum Microscope, by Mr. H. C. Sorby. The Reviews and Scientific Summary are of the usual character—replete with interest.

"QUARTERLY JOURNAL OF SCIENCE."—The number for Jan. contains a very interesting (illustrated) paper on Tenerife, by Mr. R. E. Alison; one on the "Cattle Plague," by the Editor; and "On the Recurrence of Species in Geological Formations," by Professor Ramsay. There are several lengthy reviews—Synthetical Chemistry; Anthropology; the Progress of Zoology; the Origin and Antiquity of Man; and Hofmann and Modern Chemistry;—with the usual Chronicles of Science, and Proceedings of Learned Societies.

"LEVER'S MINING ALMANAC."—The almanac bearing this title is, probably, one of the handsomest sheets published; and, considering the information contained, will be particularly valuable in the colliery office, &c. The information given embraces, in addition to the ordinary almanac matter, and a list of bankers, a summary of the last published Mineral Statistics, and lists of the officers of the Royal Society, British Museum, Mining Association of Great Britain, School of Mines, British Association, Institution of Civil Engineers, Manchester Geological Society, &c. There is an interesting and concise obituary, and much useful and general information relating to accidents on railways, new joint-stock companies, wrecks, &c., and to the Duchies of Lancaster and Cornwall.

"ROYAL INSURANCE COMPANY'S ALMANAC."—The company from which the handsome little book before us takes its title is so generally and honourably known throughout the kingdom, that to refer to the particulars demonstrating the prosperity of the institution would be altogether superfluous, yet it may not be out of place to allude to a few of the facts that are brought forward. After an admirable table and almanac, occupying some thirty pages, there is given the report of the last meeting, the actuary's report, some highly interesting insurance diagrams, and various other particulars relating to insurance matters. A list of Her Majesty's ministers and of the new members of Parliament are then given, and the book concludes with obituary notices of the Duke of Newcastle, Earl of Carlisle, Duke of Northumberland, Richard Cobden, Abraham Lincoln, and Lord Palmerston. The fire claims were unusually heavy upon all offices during the period reported upon, yet so steadily does the confidence of the public increase with regard to the ROYAL, that not only were the executive enabled to distribute a larger amount of profits than in any preceding year, but at the same time increased their available balance from 194,563s. to 209,274s.—an increase which, considering that it refers to but a single year, cannot but be regarded as highly satisfactory.

**NEW MAGNESIA LIGHT.**—The Italian journals announce the discovery of a new artificial light, by Professor Carlevaris, of Genoa. The Carlevaris light is oxy-hydro-magnesian, and it is produced by the combustion of a salt of magnesia (not a costly substance), in a mixture of oxygen, either with pure hydrogen or with common gas. The light is described as white, rich in actinic rays, steady, and giving little heat. For photographic purposes it is said to be excellent. The light is said not to be affected by currents of air, and to be extremely cheap; a light equal to four composition candles is set down at two centimes, or less than a farthing per hour. An experiment was tried at the Lighthouse of Genoa. The new light is reported to have proved superior to that of the ordinary lamps in use there, which represent 23 Carrel lamps, and to have cost not more than 3d. an hour.

From Madras, we learn that M. Monturol, a Spaniard, has solved the problem of submarine steam navigation by the invention of a vessel which can remain for hours at a considerable depth, can discharge cannons from below, and even act as a ram for piercing the hulls of iron-clad ships.

#### NEW INVENTIONS.

PROVISIONAL PROTECTION for six months has been granted for the following:—A. C. ST. PAUL DE SINCAY, 29, Boulevard St. Martin, Paris.—Improvements in the manufacture of sulphur by the reduction of the sulphurous acid accruing from the roasting of sulphuretted ores, and in apparatus for the same. Nov. 21.

F. B. DICKING, Bayswater.—Improvements in machinery for boring rock and other minerals. Dec. 13.

LETTERS PATENT have been issued for the following:—J. M. MACRUM, Hill-street, Knightsbridge.—Improvements in the manufacture of iron. July 7.

A. E. MOLIN, Fahlun, Sweden.—Improvements in separating gold from ores containing SPECIFICATION published during the week:—

Miners' safety-lamps, &c. L. DE FONTAINE-MORRAU.

**COATING SHIPS' BOTTOMS.**—An invention has been provisionally specified by Mr. J. Moysey, of Leytonstone, which consists in applying to the metal an amalgam of mercury and lead, mercury and tin, or mercury, tin, and lead, by hand or by a pad of wash-leather, and the iron has been galvanised. The proportions preferred are—mercury 3 parts, tin 1 part, lead 1 part.

A NEW MOTIVE POWER, so to speak, has been discovered. A steam-engine of 10-horse power is in operation at 90, West Lake-street, which grinds 27 bushels of corn an hour with 55 lbs. of coal. A common engine would require over 100 lbs. The invention is in the boiler, which is 2 in. thick round, with flat ends, and holds about a barrel. The principle of action is this:—A few spoonfuls of water are let into the boiler, which is quite hot; immediately the water is converted into steam, which, properly, is an explosion, hence no other explosion is possible, and the expansion and elasticity of this highly-heated steam is sufficient to work the engine. The inventor, Mr. E. Danforth, of Geneva, Illinois, states that the boiler will work any other engine. An APPEAL is made to the best of coal. A common engine would require over 100 lbs. At the head is Horatio Allen, President of the Novelty Works, New York.—U.S. Railroad and Mining Register.

**ST. CUTHBERT LEAD SMELTING COMPANY.**—A petition for winding-up this company was presented to the Master of the Rolls by the Hon. R. T. Rowley, Barrister-at-law; Lord William Graham, Stock Exchange, Hereford; G. H. Money, Jermyn-street; H. W. Spratt, Walbrook-buildings; and J. A. Morgan, Winchester-buildings, and Mr. Samuel Crane Fox, of No. 3, Winchester-buildings, has been appointed Provisional Liquidator.

**THE LATE EXPLOSION AT GETHIN COLLIERY, NEAR MERTHYR.**—By this fearful accident thirty-four persons were killed, and many received severe injuries, whereby numerous families are plunged in the greatest distress. The late explosion at Gethin Colliery, near Merthyr, has been a great calamity. At the present moment 50 per cent. surplus of the Sheffield Inundation Fund is about to be returned to the various donors; it would be an act of charity to direct such surplus to the relief of the sufferers by this appalling catastrophe. Subscriptions will be received for this purpose by the West of England Bank, Aberdare; or by—H. SIMMONDS, Secretary pro tem. Aberdare, December 29, 1865.

**QUARRY MANAGER—WANTED, for a QUARRY in NORTH WALES, a COMPETENT and EXPERIENCED LOCAL MANAGER.** The slate rock in its general character resembles the Delabrie; and a manager who has had experience in Cornish and Devonshire quarries would be preferred. Testimonials as to sobriety, ability, and general good conduct must be unquestionable.—Letters, stating salary required, and all other particulars, to be addressed to Mr. THOMAS HARVEY, 13, Old Jewry-chambers, London, E.C.—Dec. 27, 1865.

**TO QUARRY PROPRIETORS, &c.—MR. SAMUEL JENKINS, DINAS MAWDDWY,** is now preparing for the press a work on the "QUARRIES OF THE PRINCIPALITY, THEIR HISTORY," &c., and as he wishes to make it a complete as possible, he would invite Proprietors, Managers, &c., to favour him with particulars concerning any quarries they may be connected with. Also, brief notices of any new improvements in machinery, &c.

**HORIZONTAL ENGINES FOR SALE, at very low prices:—**One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place Laurence Pountney-hill Cannon-street E.C.

**THE CAMBRIAN CONSOLIDATED GOLD MINES COMPANY (LIMITED).**—Notice is hereby given, that the shareholders of this company can receive, out of the assets of this company, a DIVIDEND of 2s. 6d. per share, on their shares, on application to me, at No. 9a, Great St. Helen's, London, between the hours of Twelve and Two o'clock on Friday, the 19th day of January, 1866, or any following Friday.

J. G. GOODMAN, Liquidator of the said Company.

**NOTICE—CAPT. JOHN KITTO** (late of the Great Laxey Mines) having REMOVED to SHREWSBURY, all communications addressed to him there will meet with prompt attention.—Douglas, December 26, 1865.

**CAPT. J. RABEY OFFERS FOR SALE FIFTY SHARES, at the net price of £3 per share, in the CAL-R-PANT MINE, joining the great Minera Mine, and one of the best prospects in the district, being all whole ground, and the mine paying for itself now at the shallow depth of 40 yards.—Address, Captain J. RABEY, Coedpoth, near Wrexham Denbighshire, North Wales.**

**CAPT. JOHN SEYMOUR, M.E., LEEDSTOWN, CROWAN, CORNWALL,** OFFERS his SERVICES to the public as an INSPECTOR OF MINES and MINE SHAREDEALER. Capt. SEYMOUR having had forty years' practical mining experience, and the entire management of different mines for the last twenty-two years, is capable of giving good advice to speculators, and would recommend the following mines to be dealt in:—Kosewarne United, New Rosewarne, Rosewarne Consols, Wheel Curtis, and Great Wheel Fortescue.

**CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN, via SHREWSBURY,** has had upwards of 20 years' practical experience in mining, during which time he had the entire management of several English and Welsh mines. Residing in the centre of the CARDIGANSHIRE MINING DISTRICT, and in close proximity to those of MERIONETHSHIRE and MONTGOMERYSHIRE, he OFFERS HIS SERVICES TO SURVEY AND REPORT UPON ANY MINE.

**CAPT. CHARLES WILLIAMS** is at all times in a POSITION TO FURNISH CAPITALISTS WITH RELIABLE INFORMATION respecting MINING in NORTH and SOUTH WALES, in which they should embark or avoid. Capt. Williams has prepared a list of most of the mines that are likely to pay, and can name two or three that will turn out a great price. Tyn-y-Wern, Taliesin, via Shrewsbury, April 18, 1865.

**INSPECTION OF MINES.—PERSONS DESIROUS OF GETTING AUTHENTIC and CONFIDENTIAL REPORTS of any MINES in CORNWALL** should make application to the CHACEWATER MINES INSPECTION COMPANY, who, on receipt of the usual fee and pursuer's authority, undertake to INSPECT and FORWARD the FULLEST INFORMATION to any address. The company consist of persons of acknowledged integrity and judgment in mining matters, and includes the name of Capt. JOHN TONKIN, who has had the management of several mines in Cornwall, and late manager of the St. John del Rey Mines, in Brazil.—All communications should be addressed to the Secretary, Mr. WILLIAM BRAY, Assayer, Chacewater, Cornwall.

**ROBERT LIBBY AND SON, MINE AND SHAREDEALERS, &c., CAMBORNE, CORNWALL.** Recommend the undermentioned mines for immediate investment:—West Great Work. East Lovell. Wheel Trannack. Clifford. Rosewarne United. The above mines are quite safe for a great rise in price, and should be bought immediately. Mines inspected by competent agents.

**ELFORD, WILLIAMS, AND CO., COPPER ORE WHARFINGERS, SHIP BROKERS AND COAL EXPORTERS, METAL AND GENERAL COMMISSION AGENTS, SWANSEA.**

ELFORD, WILLIAMS, and Co. having erected an assay office, and engaged the services of a practical Cornish assayer, who will devote his whole time to this branch of their business, they are now in a position to make correct assays of silver, copper, and other mineral ores, on the most moderate terms.

**WASHOE AND REESE RIVER MINES.—THE UNDERSIGNED, being established in GOLD HILL, near VIRGINIA CITY, NEVADA, as MINING SURVEYORS, CHEMISTS, and ASSAYERS, OFFER THEIR SERVICES TO MINING COMPANIES and GENTLEMEN in ENGLAND, having interests in the above-named districts.**

Mines examined and reported on, at a scale of charges which obviously ensures a large saving upon the costs (in less and travelling expenses) of special agents sent from England. Telegrams (sent from London in 14 days) promptly attended to. W. T. RICEARD, F.C.S., M.G.A., &c. (late Mitchell and Rickard, London). CONRAD WRIGHT (late U.S. Assayer of the United States Mint, San Francisco).

London Agent:—T. W. Burr, Esq., 12, Paternoster-row.

**GOVERNMENT SECURITIES, JOINT-STOCK BANKS, RAILWAY DEBENTURES AND BONDS, COLONIAL SECURITIES, FOREIGN BONDS, AND BRITISH MINES.**—Messrs. TREDINNICK AND CO., of 78, LOMBARD STREET, LONDON, E.C., may be consulted confidentially as to the eligibility of all bond &c. investments. A selected list forwarded on application.

**MESSRS. TREDINNICK AND CO. STOCK AND SHAREBROKERS, AND DEALERS IN BRITISH MINING SHARES, 78, LOMBARD STREET, LONDON.**

"THE CITY HIVE."—A Journal of Commerce, Banking, and Mining. Price 1d

**THE BULLIONIST.—A NEW FINANCIAL NEWSPAPER,** published this day (Saturday), price 6d.

**THE BULLIONIST: A RECORD OF FINANCE, COMMERCE, AND POLITICAL ECONOMY.** Price 6d.

**THE BULLIONIST** will be continued Weekly, on Saturdays. Price 6d.

**THE BULLIONIST** contains Original Articles on Finance, Commerce, and Political Economy, by Eminent Writers.

**THE BULLIONIST,** price 6d., is to be obtained of all Newsagents, and at the "Bullionist" office, 7, Finch-lane, Cornhill, London, E.C.



## Tunbridge Wells (Commissioners) Waterworks.

**TO IRONFOUNDERS AND OTHERS.**—Notice is hereby given, that the Tunbridge Wells Improvement Commissioners are PREPARED TO RECEIVE TENDERS from persons willing to contract for the MANUFACTURE and DELIVERY of CAST-IRON SOCKET and FLANGE PIPES, and CASTINGS, required by the Commissioners for the purposes of the Tunbridge Wells Water Act, 1865, subject to certain specifications and conditions of contract, which may be seen on application to Messrs. Nixon and Dennis, engineers, 3, Victoria-street, Westminster, who will supply copies of the specification, with form of tender, on the payment of £1 for each copy.

The tenders are to be delivered (sealed and endorsed "Tender for Pipes and Castings") to the Clerk to the Commissioners, at the Town Hall, Tunbridge Wells, before Five o'clock in the afternoon, on the 15th day of January, 1866, after which no tender will be received.

The Commissioners do not bind themselves to accept the lowest or any other tender.

JOHN ELLIOTT, Clerk to the Commissioners.

Tunbridge Wells, December 19, 1865.

## NOTICE OF DIVIDEND.

## THE JOINT-STOCK COAL COMPANY (LIMITED),

At the FIRST ANNUAL MEETING of shareholders, held at the London Tavern, Dec. 29, it was resolved,—

"That the report be adopted and printed, and that a dividend and bonus equal to 10 per cent. per annum to shareholders, together with an additional bonus of 4 per cent. to coal-consuming shareholders, be paid on or after Jan. 20th, 1866."

By order, FREDERICK A. NEW, Managing Director.

## THE JOINT-STOCK COAL COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, whereby the liability of each shareholder is limited to the amount of his shares.

Capital £50,000, in 50,000 shares of £1 each.

5s. per share to be paid on application, 5s. on allotment, and the remainder as required, in calls of not more than 5s. per share, at intervals of not less than three months.

CHAIRMAN—JOHN WHITE ORAM, Esq., Bank-buildings, City.

MANAGING DIRECTOR—FREDERICK A. NEW, Esq., 49, Fleet-street, E.C.

BANKERS.—The London and County Bank, Lombard-street, and Metropolitan and Provincial Bank, 1, Abchurch-lane, London.

The General Exchange Bank (Limited), 6, D'Olier-street, Dublin.

CHIEF OFFICE.—49, FLEET STREET, E.C.

DUBLIN OFFICE AND DEPOT.—9 AND 10, CITY QUAY, DUBLIN.

This company, which is now in full operation, is formed for supplying the public with the best coal direct from the collieries.

Several depots in London and Dublin have already been established, and from the extensive trade already done, the directors believe that they will be able to declare a large dividend to the shareholders.

The directors have resolved to issue the remaining shares, applications for which may be made to the bankers, and at the office of the company.

## THE NEW TRELAHNY SILVER-LEAD MINING

COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, whereby the liability of shareholders is limited to the amount of their shares.

Capital £20,000, in 10,000 shares of £2 each.

Deposit 10s. per share, payable on application. No further payment on allotment, and no call to exceed 5s. per share, or be made at intervals of less than two months.

DIRECTORS.

ROBERT SERJEANT, Esq., Tavistock-row, Callington (Director of Wheal Trevenna, &c.).—LOCAL MANAGING DIRECTOR.

JOHN FITZPATRICK, Esq., M.D., 39, Elgin-road, Notting-hill, W.

Major T. KIERNAN (East India United Service Club), 14, St. James's-square, S.W.

ROBERT F. POWER, Esq., 105, Pall Mall, St. James's, S.W.

ROBERT SCOTT, Esq., Richmond, Surrey.

BANKERS.—The Imperial Bank (Limited), 6, Lothbury, London, E.C.

The East Cornwall Bank, Liskeard, Cornwall.

BROKER—George B. Rickard, Esq., 24, Austinfrs., and Stock Exchange, London, E.C.

SOLICITOR—Henry Phillips, Esq., 2, Robert-street, Adelphi, W.C.

INSPECTING AGENT—Capt. William Johns (of Wheal Trelawny Mine).

SECRETARY (pro tem.)—Mr. Edward Jones.

OFFICES.—75, CANNON STREET WEST, LONDON, E.C.

## ABRIDGED PROSPECTUS.

This company is formed for purchasing the lease of a first-class mineral property, known as Venn and Penquite, situated in the parish of St. Ives, near Liskeard, in the county of Cornwall, and for working the valuable lodes contained therein. There are good roads through the mine, and every facility for conveying the ores to market at a cheap cost.

The lease is for 21 years, from 29th September last, the rent being almost nominal—viz., £20 per annum, merging into a royalty of 1-15th.

It is estimated that only a very moderate outlay will be necessary to bring this mine into a dividend-paying position, as, judging from the extreme richness in silver of the gossan, at present obtainable from so shallow a depth, and other satisfactory indications, profitable returns are anticipated at a very early date. The reports from Capt. William Johns, of the Wheal Trelawny Mine; Capt. Thomas Trevillion, of the Herodfoot Mine; Capt. John Goldworthy, of East Wheal Russell Mine, and others, testify to the favourable opinion entertained of the property by some of the most experienced miners in the district.

Of the 10,000 shares, 1400 will be issued with 10s. per share paid-up, and 500 shares as fully paid-up, which will be delivered to the vendor towards the purchase of the mine, leaving 8100 shares to be offered to the public, the vendor having agreed to take more than three-fifths of the purchase-money for the lease, &c., in shares, the balance (£1000) being payable in cash by instalments.

Prospectuses, with forms of application for shares, can be had of the bankers, brokers, or secretary, at the offices, 75, Cannon-street West, London, E.C., where additional favourable reports by Captain Harpur (of Lady Bertha) and others may also be seen, orders to view the mine obtained, and the result of the various assays inspected.

By order of the Court, ALFRED LOWE, Secretary.

17 and 18, Cornhill, London, Jan. 4, 1865.

## NATIONAL PROVINCIAL BANK OF ENGLAND

(Established in the year 1834)

WILL OPEN FOR THE TRANSACTION OF BANKING BUSINESS IN LONDON on the 10th January, 1866, at the head office, Bishopsgate-street (corner of Threadneedle-street), and at the St. James's branch, 14, Waterloo-place, Pall-mall.

Subscribed capital £2,100,000 0 0

Paid-up capital 1,080,000 0 0

Reserve fund 225,452 6 2

Number of shareholders, 1704.

The NATIONAL PROVINCIAL BANK OF ENGLAND, having numerous branches in England and Wales, as well as agents and correspondents at home and abroad, will afford great facilities to parties transacting banking business with it in London. Customers keeping accounts with the bank in town may have monies paid to their credit at its various branches, and remitted free of charge.

CURRENT ACCOUNTS will be conducted at the head office and St. James's branch on the usual terms of London banks.

DEPOSITS at INTEREST will be received of sums of £10 and upwards, for which receipts will be granted called deposit receipts, and interest will be allowed from time to time according to the value of money as advertised in the newspapers.

THE AGENCY OF COUNTRY AND FOREIGN BANKS, whether joint-stock or private, will be undertaken.

PURCHASES AND SALES EFFECTED in all British and Foreign Stocks, and Dividends, Annuities, &c., received for customers.

CIRCULAR NOTES for the use of Travellers on the Continent will be issued as soon as arrangements can be made.

THE OFFICERS of the BANK are bound to secrecy as regards the transactions of its customers.

COPIES of the THIRTY-SECOND ANNUAL REPORT of the Bank, Lists of Shareholders, Branches, Agents, and Correspondents, may be had on application at the head office, and at St. James's branch.

By order of the Directors, A. ROBERTSON, Joint General

E. ATKINSON, Managers.

## MINING OFFICES, MANCHESTER.

## THOMAS MOLYNEUX AND CO., MINE AGENTS

AND SHAREBROKERS. Reliable information can be obtained as to purchase and sale of shares.

Offices of the Ellen United Copper and Zinc Mining Company (Limited), and Hazell Grove Silver-Lead Mining Company (Limited). Tnos. MOLYNEUX, secretary, 38, Prince's-street, Manchester.

## MANCHESTER, AND WEST END OF LONDON.

## MR. W. HANNAH, MINING, SLATE QUARRYING,

INSURANCE, AND GENERAL SHAREBROKER,

ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER; and

31, REGENT STREET, LONDON, S.W.

INSTANTANEOUS COMMUNICATION with the STOCK and MINING EXCHANGES, avoiding the delay and annoyance of visiting the City to ascertain prices.

A Monthly Investment Circular on application.

## NORTH OF ENGLAND MINING AND ENGINEERING OFFICES,

MANCHESTER.

## MESSRS. HARVEY AND CO., MINING ENGINEERS,

AGENTS, AND SHAREDEALERS, CLARENCE CHAMBERS, MAN-

CHESTER, are at all times in a position to deal in all the market Dividend and Pro-

gressive Mine shares, and also to advise on all mining matters, being practically ac-

quainted with the business, and having a daily communication from the mining dis-

tricts of Devon and Cornwall.

Messrs. HARVEY and Co. publish a monthly "Mining Circular," containing a va-

luable summary of mining information. Subscription, 6s. per year.

Bankers: The Consolidated, Manchester; and the Alliance, Lothbury, London.

## CHARLES DAVEY AND CO.

SAFETY FUSE MANUFACTURERS,

ST. HELEN'S JUNCTION, LANCASHIRE.

## In the Court of the Vice-Warden of the Stannaries: Stannaries of Devon.

**IN the MATTER of the COMPANIES ACT, 1862, and of the NEW CONCORD SILVER LEAD AND COPPER MINING COMPANY (LIMITED).**—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 20th day of January inst., to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS of THEIR SEVERAL CLAIMS on the said company, to William Mitchell, Esq., the Registrar of the said court at Truro.

Dated Registrar's Office, Truro, January 3, 1866.

## In the Court of the Vice-Warden of the Stannaries: Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the OLD WHEAL NEFTUNE MINING COMPANY (LIMITED).**—TO BE SOLD, by direction of the Liquidators of the said company, with the sanction of the Court, BY PUBLIC AUCTION, at OLD WHEAL NEFTUNE MINE, in the parish of Perranuthnoe, near Marazion, Cornwall, on Tuesday, the 9th day of January, 1866, at Eleven o'clock in the forenoon, the undermentioned MINING MACHINERY, MATERIALS, and OTHER EFFECTS, the whole being at surface, in lots, viz.:—ONE 70 inch cylinder PUMPING ENGINE, 12 ft. stroke, equal beam; TWO BOILERS, 11 tons each, with fittings complete; PORTABLE ENGINE, 8 horse power; 60 ft. shaft, complete; 10 arm capstan, oak axle, iron sockets and braces, 220 fms. 13 in. capstan rope, new; balance-bob, with box complete; crusher, lot of valuable pitwork, new and old timber and iron, whim and capstan ropes, chain, boring machine, air ditto, 80 tons of coals, together with the account house and office furniture, and a quantity of other articles and effects in general use in mines.

The mine, machinery, and materials may be inspected at any time prior to the sale, by application at the mine.

HODGE, HOCKIN, AND MARRACK, Truro

(Solicitors for William Polkinghorne, one of the Liquidators of the said company).

H. S. STOKES, Truro

(Agent for Benham and Tindell, 18, Essex-street, Strand, London, the Solicitors for William Joseph White, the other Liquidator of the said company).

Dated Registrar's Office, Truro, December 20, 1865.

## In the Court of the Vice-Warden of the Stannaries: Stannaries of Cornwall.

## IN RE WEST CONDUROW MINE.

**TO BE SOLD, pursuant to an Order made in a Cause Paul v. Eddy and Others,** dated the 24th day of October last, at the Registrar's Office, at Truro, on Wednesday, the 17th day of January inst., at One o'clock in the afternoon,

5 (5040ths) PARTS or SHARES of the defendant Peter Eddy,

15 (5040ths) PARTS or SHARES of the defendant George Garmham,

10 (5040ths) PARTS or SHARES of the defendant Emma Weatherley,

180 (5040ths) PARTS or SHARES of the defendant Richard Tredinnick,

10 (5040ths) PARTS or SHARES of the defendant Lydia Tolfree; and

100 (5040ths) PARTS or SHARES of the defendant John Wetenhall,

Of and in the said MINE.

JOHN GILBERT CHILLCOTT, Truro

(Agent for John and David, Camborne, Plaintiff's Solicitor).

Dated Registrar's Office, Truro, January 2, 1866.

## In the Court of the Vice-Warden of the Stannaries: Stannaries of Cornwall.

## IN RE EAST JANE MINE.

**TO BE SOLD, pursuant to two several Orders made in the Causes**

Ward v. Vercoe and Others, and Ward v. Bennett, dated respectively the 5th day of August last and the 11th day of November last, at the Registrar's Office, at Truro, on Wednesday, the 17th day of January inst., at One o'clock in the afternoon,

65 (6140ths) PARTS or SHARES of the defendant John Vercoe; and

235 (6140ths) PARTS or SHARES of the defendant John Bennett,

Of and in the said MINE.

JOHN GILBERT CHILLCOTT, Truro

(Plaintiff's Solicitor).

Dated Registrar's Office, Truro, January 2, 1866.

## VALUABLE MINE MATERIALS FOR SALE.

**MR. R. KERBY WILL SELL, BY AUCTION, on Monday, the**

8th day of January next, at Eleven o'clock in the forenoon precisely, at WHEAL LOVELL MINE, in the parish of Wendron, about three miles from Helston, the under-

mentioned VALUABLE MATERIALS, consisting of a 50 in. cylinder ENGINE, with TWO BOILERS of 9 tons each.

A 17½ in. STEAM WHIM, and ONE BOILER 9 tons.

A 24 in. STEAM STAMPS, with 12 heads, and BOILER 8½ tons.

Stamps axle for 12 heads, stamps frames, stamps heads with wood lifters, angle bob, 82 pumps of different sizes, working barrels, H and doorpieces, plunger poles, windboxes and matchings, bucket rods, whim and other chains, 80 fms. of skip road, wood air pipes, a great many fathoms of launders, smiths' bellows, smiths' tools, tin dressing frames, sieves, and a great variety of other articles in general use in mines.

Any further information may be had on application to Capt. PHILLIPS, on the mine; or of the Auctioneer, Menage-street, Helston.—Dated December 27, 1865.

## CORNWALL, AND ST. JAMES'S STREET, LONDON.

THE CAPITAL MANUFACTURING PREMISES, WITH THE VALUABLE FIXED

PLANT AND MACHINERY, STONE-BUILT COTTAGE, AND LEASES OF

LARGE TRACTS OF LAND FOR QUARRYING PURPOSES, BELONGING TO

THE LIZARD SERPENTINE COMPANY (LIMITED), SITUATE NEAR TO

LIZARD'S POINT; ALSO, THE LEASE OF GROUND FLOOR PREMISES IN

ST. JAMES'S STREET.

**MESSRS. WINSTANLEY AND HORWOOD are instructed by**

the Official Liquidator appointed to wind-up the affairs of the above-named

company to OFFER FOR SALE, BY AUCTION, at the London Tavern, in Bishopsgate-

street, on Wednesday, the 24th day of January, 1866, in Two Lots, the

VALUABLE LEASES, at nominal rents and royalties, of large tracts of LAND, si-

tuated in the parishes of Ruon Minor, Landewednack, and Grade, on which have

already been opened six quarries, each capable of yielding an almost endless supply

of beautiful varieties of serpentine, unequalled in brilliancy of colour and elegance of

appearance, the general applicability of which for decorating works of importance is

fully established, the materials being now extensively patronised by architects of cele-

brity. With the foregoing will be included the substantially STONE BUILT and

SLATED FACTORY, and other premises, erected at Carleon Cove, at considerable ex-

pense, within a few years—comprising a sawing-mill, ripping, rubbing, turning, mason's,

polishing, carpenter's, and blacksmiths' shops, counting-house, yard, &c.; together with

the whole of the working plant and machinery, driven by water-power, and in excellent

condition; there is also a comfortable cottage, of ten rooms, for a resident manager, re-

cently erected on a croft of about 6½ acres.

The purchaser will have the option of taking the stock of serpentine in block and slab

on the premises at Carleon Cove and Quarries, and also the partly manufactured articles

there and elsewhere belonging to the company, at a valuation in the usual way.

Lot 2 will comprise the lease for 17 years unexpired, at £135 per annum, of the ground

floor premises, No. 24, St. James's-street, Westminster.

The factory and quarries to be viewed on application to Mr. Cox, on the property, of

whom printed particulars may be obtained, 20 days previously; also at the Angel, Hel-

ston; Red Lion, Truro; Royal and Duke of Cornwall Hotels, Plymouth; King's Arms,

Falmouth; and in London of F. MAYNARD, Esq., official liquidator, 19, Broad-street,

Cheapside, E.C.; of Messrs. YOUNG, MAPLES, TEASDALE, and YOUNG, solicitors, Fred-

erick's-place, Old Jewry, E.C.; and of Messrs. WINSTANLEY and HORWOOD, auctioneers,

&c., 10, Paternoster-row, St. Paul's, E.C.

## WEST WHEAL JANE TIN MINE, SITUATE IN THE PARISH OF KEA,

NEAR TRURO, CORNWALL.

**MESSRS. WINSTANLEY AND HORWOOD have received in-**

structions from the committee empowered to wind-up the affairs of the mine, to

OFFER FOR SALE, BY AUCTION, at the London Tavern, Bishopsgate-street,

London, on Wednesday, the 24th day of January, in one lot, the ADVENTURERS'

INTEREST IN THE SETT, together with the whole of the fixed PLANT and MACHIN-

ERY, THREE STEAM ENGINES, for pumping, winding, and stamping, dressing

plant, pitwork, workshops, &c., erected at a very considerable cost in the last few years;

also all the loose material on the mine. Particulars may be obtained at the Helston,

Truro; Angel, Helston; Royal Hotel, Plymouth; and in London of F. W. CHILDS, Esq.,

solicitor, 25, Coleman-street, E.C.; of EDWARD KING, Esq., 22, Austinfrs., E.C.;

and of the Auctioneers, 10, Paternoster-row, St. Paul's, E.C.

## NEW TRELEIGH CONSOLS MINE, REDRUTH.

**SPARE MATERIALS FOR SALE,**

BY PRIVATE CONTRACT.

36 9 ft. 13 in. pumps. 2 12 in. stuffing boxes.

1 9 ft. 12 in. ditto. 2 12 in. H-pieces, in two parts.

2 10 ft. 12 in. plunger poles. 2 12 in. T-doorpieces.

2 13 in. plunger cases. 80 fms. of 9 and 10 connection rods.

4 13 in. matching pieces; 1 balance-bob, with plunger blocks and braces, all nearly

new; 1 eight-armed capstan and shears, with sheaves and braces complete; a large

quantity of 9-16th chain, nearly new; rod-plates in good condition; and several

hundreds of flange pins, equal to new.

The above spare materials are in first-rate condition, and will be sold by private con-

tract. For further particulars, apply to Capt. MICHELL, on the mine.

**FOR SALE, at WHEAL FALMOUTH AND SPERRIES**

**MINES, near TRURO, the following PITWORK, in excellent condition, being**

nearly equal to new:—

36 9 ft. 15 and 19 in. PUMPS, with bottoms, windboxes, working barrels, door-

pieces, plunger poles, stuffing box, and glands to match



**FOUNDRY, HAYLE, SEPT. 29, 1865.**—SIR: We beg to inform you that, in consequence of our INCREASING BUSINESS in LONDON, we have purchased the HAYLE FOUNDRY WHARF (formerly Crown Wharf), NINE ELMS, where we shall carry on in all their branches the businesses of FOUNDRERS and ENGINEERS.

Having by this arrangement provided greater facilities for the dispatch of work committed to us by our friends in London, and being also enabled to extend our business, we are, in addition to the usual Engineering work hitherto undertaken by us, prepared to SUPPLY MINING MACHINERY from this wharf at the shortest notice, where also our resident engineer will be in attendance to give information in designing general plans and details of the most improved machinery for mining and other purposes.

Our offices hitherto at Clarence Chambers, 12, Haymarket, will from this date be transferred to the Hayle Foundry Wharf, Nine Elms, S., where all communications intended for our London branch should be addressed.

We are, Sir, your obedient servants,  
HARVEY AND CO.

#### BLASTING.

AS NOW ADAPTED BY LENK'S PROCESS  
IS THE CHEAPEST AND SAFEST EXPLOSIVE,  
AND FREE FROM SMOKE.  
Prices and directions for use on application to the Manufacturers,  
THOMAS PRENTICE AND CO.,  
175, FENCHURCH STREET, LONDON, E.C.  
MANUFACTORY, STOWMARKET, SUFFOLK.

**SAFETY FUSE.**—Messrs. WILLIAM BRUNTON AND CO.,  
PENHALICK, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near  
WREXHAM, MANUFACTURERS OF FUSE, of every size and length, as exhibited  
in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the  
Arctic Expedition, and every part of the globe.

For the convenience of their customers and others in the North, W. BRUNTON and Co.  
have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at  
Cornwall, they are at all times PREPARED TO EXECUTE UNLIMITED ORDERS  
for SUPPLYING FUSE upon warrant that it will prove equal to, if not better than  
any to be procured elsewhere.

**THOMAS TURTON AND SONS,**  
MANUFACTURERS OF

CAST IRON FOR PUNCHES, TAPS, and DIES,  
TURNING TOOLS, CHISELS, &c.  
CAST STEEL PISTON RODS, CRANK PINS, CON-  
NECTING RODS, STRAIGHT and CRANK AXLES,  
SHAFTS and  
FORGINGS OF EVERY DESCRIPTION.  
DOUBLE SHEAR STEEL, FILES MARKED  
BLISTER STEEL, T. TURTON & SONS  
SPRING STEEL, EDGE TOOLS MARKED  
GERMAN STEEL, WM. GREAVES & SON,  
Locomotive Engine, Railway Carriage and Wagon  
Springs and Buffers.

**SHEAF WORKS AND SPRING WORKS, SHEFFIELD.**  
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.,  
Where the largest stock of steel, files, tools, &c., may be selected from.

**BASTIER'S PATENT CHAIN PUMP,**  
APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY  
APPLICABLE TO ALL KINDS OF MINES, DRAIN-  
AGE, WELLS, MARINE, FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of  
mines, engineers, architects, farmers, and the public in ge-  
neral, to his new pump, the cheapest and most efficient ever  
introduced to public notice. The principle of this new pump  
is simple and effective, and its action is so arranged that ac-  
cidental breakage is impossible. It occupies less space than  
any other kind of pump in use, does not interfere with the  
working of the shafts, and unites lightness with a degree of  
durability almost imperishable. By means of this hydraulic  
machine water can be raised economically from wells of any  
depth; it can be worked either by steam-engine or any other  
motive power, by quick or slow motion. The following  
statement presents some of the results obtained by this hy-  
draulic machine as daily demonstrated by use:—  
1.—It utilizes from 90 to 92 per cent. of the motive power  
2.—Its price and expense of installation is 75 per cent. less  
than the usual pump employed for mining purposes.  
3.—It occupies a very small space.  
4.—It raises water from any depth with the same facility  
and economy.  
5.—It raises with the water, and without the slightest in-  
jury to the apparatus, sand, mud, wood, stone, and every ob-  
ject of a smaller diameter than its tube.  
6.—It is easily removed, and requires no cleaning or at-  
tention.

BASTIER'S PATENT CHAIN-PUMP may be seen daily  
in operation at Messrs. SAMUEL BERGER and Co.'s Patent  
Rice Starch Works, Bromley-by-Bow, London, E. Cards of  
admission to be had on application to the inventor and pa-  
tentees, Mr. J. U. BASTIER, C.E.; or to Messrs. J. JACKSON  
and Co., Engineers, 17, Gracechurch-street, London.

J. U. BASTIER and Messrs. JACKSON and Co. will CON-  
TRACT TO ERECT THE PATENT PUMP, and will GUAR-  
RANTIE IT FOR ONE YEAR, or will grant licenses to manufacturers, mining  
proprietors, and others, for the use of this invention.  
OFFICES, 17, GRACECHURCH STREET, LONDON.

Now ready, price 3s.  
**FORM OF "TACK-NOTE."**  
OR LICENSE TO EXPLORE FOR MINERALS.

Many enquiries have been made during the past few months for the form of Tack-  
Note published at the Mining Journal Office, to which the answer "out of print" and  
"reprinting" has been returned. The form may now be had upon application to the  
bookseller to whom orders have been given, or will be forwarded direct from our office  
on receipt of a remittance of 5s. by Post-office order.

London: Published at the Mining Journal Office, 26, Fleet-street, E.C.

Price 3d. each.  
**A PAMPHLET, dedicated to W. O. Foster, Esq., M.P., contrasting  
the PRESENT 10th PAST RATES OF FREIGHT TO LONDON and LIVER-  
POOL from the SOUTH STAFFORDSHIRE IRON DISTRICT.**  
By SAMUEL HILL, Member of the Historic Society of Lancashire and Cheshire,  
Author of a Paper on "The Freedom of the Labour Market."

Also, a PAPER ON SELF-HELP, dedicated by kind permission to  
the Right Honourable Lord Lytton, President of the South Staffordshire Adult Edu-  
cational Association, and published for its benefit by the author.  
London: Mining Journal Office, 26, Fleet-street, London, E.C.—Liverpool: Charles  
Tinsling, the Courier office.—Wolverhampton: Simpson and Steen, High-green.

**THE HARDWARE WEEKLY MESSENGER.**  
**CHARLES RYLAND AND SONS' IRON TRADE CIRCULAR  
AND HARDWARE WEEKLY MESSENGER.**

The "Iron Trade Circular" is eminently the business journal of the mining districts  
and the manufacturers and wholesale dealers in iron. Its information is authentic,  
unbiased, and complete, comprising not only the business news of the South and North  
Staffordshire district, but generally of the entire mining and manufacturing districts of  
the United Kingdom. It is now proposed to add a collection of special and general in-  
formation in the interests of the Hardware Trades of Birmingham, Sheffield, and Lon-  
don, to be comprised in a department of the "Iron Trade Circular," under the head of  
"The Hardware Weekly Messenger." Subscription:—

One year (post free) ..... £2 2 0  
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Quarter of a year (post free) ..... 0 10 6  
Payable in advance.

Advertisements and orders to be addressed Union-passage Birmingham.  
CHARLES RYLAND AND SONS, Iron and Metal Brokers.

**THE ONLY PAPER PRINTED AND PUBLISHED IN THE COUNTY OF FLINT**  
**THE FLINT COUNTY CHRONICLE:** A Mining, Agricultural,  
and General Advertiser for Mold, Flint, Rhyl, Holywell, Northop, Buckley,  
Hawarden, Saltney, and neighbourhood. The great success which has attended the pub-  
lication of the "County Chronicle" justifies the proprietors in drawing the attention of  
advertisers to the special advantages it offers as an advertising medium. For the an-  
nouncements of auctions, public companies, and tradesmen, it is the best in the  
county, having attained a circulation throughout Flintshire treble that of all the other  
so-called local papers combined. As a newspaper it contains full and impartial reports  
of all local events, and devotes particular attention to the mining and oil trade interests  
of the district—special articles appearing from week to week on agriculture is not in-  
terested, the latest market reports being a distinctive feature of the paper, together with  
other matters of interest to the agriculturist. All communications should be addressed  
"To the Editor," Bromfield Villa, Maesdydderwen, Mold.

**THE STOCKTON AND HARTLEPOOL MERCURY AND  
MIDDLEBOROUGH NEWS** (published at Hartlepool) is eminently the organ  
of the Coal, Iron, and Iron Ship-building Trades in the extensive Mining and Maritime  
District of South Durham and Cleveland, with which it has been closely identified since  
its origin. The "Mercury" was for years the only newspaper published in South Dur-  
ham and Cleveland, and is yet the only one published more than once a week. Ad-  
vertisements to be forwarded to the publisher, Mr. JOHN H. BELL, Southgate, Hartlepool.

**THE NEWCASTLE CHRONICLE AND NORTHERN  
COUNTIES ADVERTISER.** (Established 1764).  
Published every Saturday, price 3d., or quarterly 2s. 3d.  
**THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER.**  
Published every morning, price 1d.  
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields  
195, High-street, Sunderland

**DR. SMITH, who has had twenty years' practical experience in the  
treatment of Debility, Spasm, Rheumatism, Disorders of the Nervous System, &c.,  
has published A GUIDE (388 pages) for Self-Cure. Sent to any address on receipt of  
two stamps. DR. SMITH may be consulted personally (or by letter) in all private and  
confidential cases.—Address, SMITH and Co., 8, Burton-crescent, Euston-road, London  
W.C. Consultations daily from Eleven to Five.**

**NICHOLLS, WILLIAMS, AND CO., ENGINEERS,**  
BEDFORD IRONWORKS, TAVISTOCK.

MANUFACTURERS OF STEAM ENGINES, OF EVERY DESCRIPTION, made on  
the BEST and NEWEST PRINCIPLES. We beg more especially to call the attention  
of the public to the manufacture of our BOILERS, which have been tested by most of  
our leading engineers. PUMP WORK CASTINGS OF EVERY DESCRIPTION, both  
of brass and iron. HAMMERED IRON and HEAVY SHAFTS OF ANY SIZE.  
CHAINS made of the best iron, and warranted. MINERS' TOOLS and RAIL-  
WAY WORK OF EVERY DESCRIPTION.

ALL ORDERS FOR ABROAD RECEIVE THEIR BEST ATTENTION. NICHOLLS,  
WILLIAMS, AND CO. have had 20 years' experience in supplying machinery to foreign  
mines, and selecting experienced workmen to erect the same, where required.  
Messrs. NICHOLLS, WILLIAMS, AND CO. have always a LARGE STOCK OF SECOND-  
HAND MINE MATERIALS in stock, and at moderate prices.

**FOR SALE, a WATER-WHEEL, 60 ft. diameter, and 2 ft.  
brest, nearly new; cast-iron rings, sockets, iron axle, saddles, and gun-metal  
bearings. A 12 heads STAMP AXLE, not much used, with connections for working  
the same. A 36 in. cylinder ENGINE, 10 feet stroke, with TWO 7 ton BOILERS, all  
in good condition.—For particulars, apply to NICHOLLS, WILLIAMS, AND CO., engineers,  
Tavistock.**

**PATENT FLEXIBLE TUBING,  
AND BRATTICE CLOTH FOR MINES,  
MANUFACTURED BY  
ELLIS LEVER,  
PATENTEE,  
WEST GORTON WORKS, MANCHESTER.**

**TAVISTOCK IRONWORKS AND STEEL ORDNANCE  
COMPANY (LIMITED).**  
(LATE GILL AND CO.)  
ENGINEERS, IRON AND BRASS FOUNDERS,

MANUFACTURERS OF  
STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS.  
CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST  
AND HAMMERED IRON FOR MINING, MANUFACTURING,  
RAILWAY, OR AGRICULTURAL PURPOSES.  
Machinery sent to all parts of the world.  
Foreign mining companies supplied on liberal terms.

**RAILWAY CARRIAGE COMPANY (LIMITED),**  
ESTABLISHED 1847.  
OLDBURY WORKS, NEAR BIRMINGHAM.  
MANUFACTURERS OF RAILWAY CARRIAGES and WAGONS, and EVERY  
DESCRIPTION OF IRONWORK.  
Passenger carriages and wagons built, either for cash or for payment over a  
period of years.  
RAILWAY WAGONS FOR HIRE.  
CHIEF OFFICES, OLDBURY WORKS, NEAR BIRMINGHAM.  
LONDON OFFICES, 6, STOREY'S GATE, GREAT GEORGE STREET,  
WESTMINSTER.

**THE METROPOLITAN RAILWAY CARRIAGE AND  
WAGON COMPANY (LIMITED),**  
SALTLEY WORKS, BIRMINGHAM.  
Successors to Messrs. JOSEPH WRIGHT and Sons.  
MANUFACTURERS OF RAILWAY CARRIAGES, WAGONS, and RAILWAY  
IRONWORK OF every description.  
RAILWAY CARRIAGES and WAGONS built for CASH, or upon DEFERRED  
PAYMENTS EXTENDING over a period of from THREE to TEN YEARS.  
A large number of COAL, IRONSTONE, BALLAST, and other WAGONS to be  
LET ON HIRE.  
MANUFACTORY AND CHIEF OFFICES—SALTLEY WORKS, BIRMINGHAM.  
LONDON OFFICES—No. 8, ADAM STREET, ADELPHI, W.C.

**THE BEVERLEY IRON AND WAGON COMPANY  
(LIMITED).**  
MANUFACTURERS OF RAILWAY CARRIAGES and WAGONS, WROUGHT  
AND CAST IRON CARRIAGE and WAGON WHEELS, AXLES, HAMMERED  
USES, and HEAVY SMITHS' WORK FOR ENGINEERS, &c. BRASS and IRON  
FOUNDERS, MAKERS OF PORTABLE FARM RAILWAYS, TURNTABLES,  
CROSSINGS, SWITCHES, &c. AGRICULTURAL MACHINISTS, MANUFAC-  
TURERS OF FIELD, ROAD, and BARN IMPLEMENTS, PATENT LORRY,  
CART, and CARRIAGE WHEELS, with WOOD or IRON NAVES. REAPING  
MACHINES, CLOD CRUSHERS, CORN MILLS, &c. SAW MILL PROPRIETORS.  
GENERAL TIMBER CONVERTERS for HOME and FOREIGN RAIL-  
WAYS, STATIONS, BARRACKS, EXHIBITIONS, &c.  
IRONWORKS, BEVERLEY, YORKSHIRE.  
JAMES DEWHIRST, Sec.

**THE BIRMINGHAM WAGON COMPANY (LIMITED)**  
MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for  
HIRE and SALE, by immediate or deferred payments. They have also wagons for hire  
capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping  
purposes. Wagons in working order maintained by contract.  
EDMUND FOWLER, Sec.  
WAGON WORKS, SMETHWICK, BIRMINGHAM.

IMPROVED APPLICATION OF WATER-POWER.

**THE TURBINE.—MAC ADAM BROTHERS AND CO.,**  
ENGINEERS, SOHO FOUNDRY, BELFAST, have been engaged for 12 years,  
with complete success, in MANUFACTURING their IMPROVED TURBINES, and  
can recommend them with confidence.  
This machine is applicable to all practicable heights of fall and quantities of water,  
giving a much higher percentage of power than any other description of water-wheels.  
On low falls it has the additional advantage of not being affected by floods or back-  
water, and it is particularly well adapted for any falls where the quantity of water is  
variable.  
Further particulars on application, also references to turbines now at work on a great  
variety of falls.

**COAL CUTTING MACHINERY.**  
The WEST ARDSLEY COMPANY having, by recently patented improvements,  
perfected their coal cutting machinery, worked by compressed air, are NOW READY  
TO MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.  
The results of twelve months' experience in the working of these machines, by the  
West Ardsley Company, have proved most satisfactory, their use being found to  
CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN  
the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.  
All communications to be made to Messrs. FIRTH, DONISTHORPE, and BOWER, No. 8,  
Britannia-street, Leeds.

**NOTICE.—The WEST ARDSLEY COMPANY, having reason  
to believe that their patents are being infringed upon, hereby give notice that  
they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may  
MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any  
such INFRINGEMENT is MADE.**

**Patent Flat and Round Wire and Hemp Ropes, &c.**  
**JOHN AND EDWIN WRIGHT, PATENTEES,**  
CITY OFFICE, 19, LONDON STREET, E.C.  
ESTABLISHED 1770.

Manufacturers of every description of  
**IMPROVED PATENT FLAT AND ROUND WIRE ROPES,**  
From the very best quality of charcoal iron and steel wire.  
**PATENT FLAT AND ROUND HEMP ROPES,**  
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCT-  
ORS, STEAM-PLUGH ROPES (made from Webster and Horsfall's patent  
steel), WIRE, HEMP, FLAX, ENGINE YARN, COTTON WASTE, &c.  
UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.  
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.  
No. 2, OSWALD STREET, GLASGOW.  
CITY OFFICE, No. 19, LONDON STREET, LONDON.

**Swan Rope Works.**

**GARNOCK, BIBBY, AND CO.,**  
CHAPEL STREET, LIVERPOOL,  
MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON AND STEEL WIRE  
ROPES FOR MINING, RAILWAY, and SHIPPING PURPOSES.  
MANILLA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STRONGER  
and THIRTY PER CENT. CHEAPER than Russian hemp rope.  
WIRE ROPE OF FIRST QUALITY WIRE, and the HIGHEST STANDARD of  
STRENGTH.

**TO MAKERS AND USERS OF COKE—GOOD HARD COKE FROM  
WASTE SLACK.**

**HICKLIN AND PARDOE'S IMPROVED COKE OVENS.**  
This invention (secured) enables the MANUFACTURE of GOOD HARD  
COKE, suitable for BLAST FURNACES, CUPOLAS, &c., from STAFFORDSHIRE,  
or other non-bituminous FINE SLACK (by the admixture of a small proportion of  
bitumen), to be carried on in the MOST EFFECTIVE and PROFITABLE MANNER,  
and WITHOUT THE USUAL WASTE. It is applicable to all kinds of fine slack.  
For particulars and terms apply to COLLIS BROTHERS, Mining Engineers, Stourbridge.

**THE CLUTCH SAFETY CAGE, IMPROVED.**  
The improvement consists in its having only a single spring, which is strong  
enough to take the lift of the loaded cage; to overhaul the broken rope, however distant  
the fracture may be; and yet so conditioned that it cannot bring the clutches into play  
till the rope is broken. It is an ordinary carriage spring, and can be replaced, when  
needed, at any coach-work. Makers of cages, or inventors, who may wish to combine  
the safety clutch with their own improvements are respectfully informed that liberty  
to do so will be granted to them on easy terms.—Apply to the patentee, ROBERT ATTOR  
3, Petter-row, Edinburgh.

**First Class Silver Medal, Royal Polytechnic Society,  
Falmouth, 1864.**

**CREASE'S PNEUMATIC TUNNELLING ENGINE,**  
for SUPERSEDING the SLOW and EXPENSIVE USE of MANUAL LABOUR  
in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to  
drive through any rock of average hardness at a minimum rate of 1 in. per diem, and  
to sink shafts at the rate of 3 fms. in three days.  
Mr. CREASE will enter into contracts for sinking shafts, driving levels, &c., at an en-  
ormous reduction of time and great saving in cost.  
Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE  
Tavistock Devon.

International Exhibition, 1862—Prize Medal.



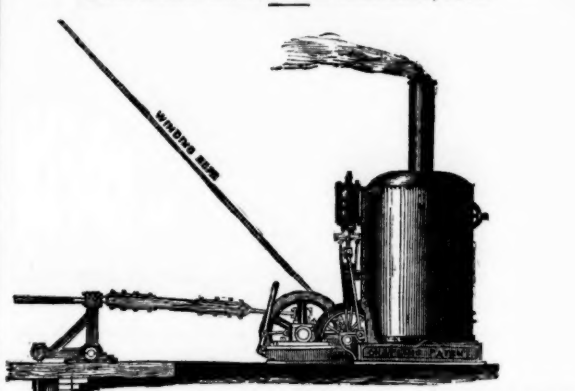
**JAMES RUSSELL AND SONS**  
(the original patentees and first makers of wrought-iron  
tubes), of the CROWN PATENT TUBE WORKS, WED-  
NESBURY, STAFFORDSHIRE, have been AWARDED  
PRIZE MEDAL for the "good work" displayed in their  
wrought-iron tubes and fittings.  
Warehouse, 81, Upper Ground-street, London, S.

**BICKFORD'S PATENT SAFETY-FUSE OBTAINED the  
PRIZE MEDALS at the ROYAL EXHIBITION of 1851, at the INTERNA-  
TIONAL EXHIBITION of 1862, in London, and at the IMPERIAL EXPOSITION  
held in Paris, in 1855.**



**BICKFORD, SMITH, AND CO.,**  
TUCKINGMILL, CORNWALL, MANUFACTURERS  
OF PATENT SAFETY-FUSE, having been informed that the  
name of their firm has been attached to fuse not of their ma-  
nufacture, beg to call the attention of the trade and public to  
the following announcement:—  
EVERY COIL of FUSE MANUFACTURED by them has  
TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOW-  
DER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE  
THREADS as THEIR TRADE MARK.

Prize Medal—International Exhibition, 1862.



**CHAPLIN'S PATENT PORTABLE  
STEAM ENGINES, &c., for PUMPING AND WINDING.**

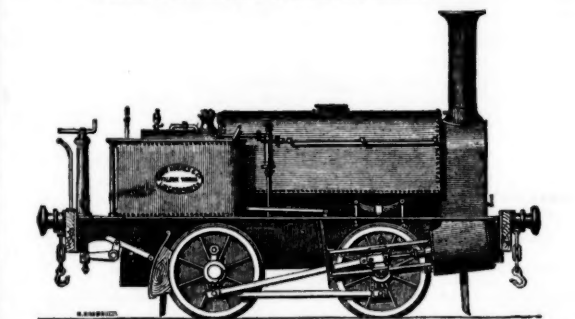
These engines are SPECIALLY ADAPTED for PITS, QUARRIES  
&c. They are EXCEEDINGLY SIMPLE in ARRANGEMENT, and  
STRONG. NO FOUNDATION or CHIMNEY STALK being NE-  
CESSARY, they can be ERECTED or REMOVED with VERY  
LITTLE TROUBLE or EXPENSE, and are WELL ADAPTED for  
HOME or FOREIGN USE.  
Sizes, from 2 to 25 horse power.

STEAM CRANES, STEAM WINCHES, CONTRACTORS'  
LOCOMOTIVES, HOISTING ENGINES, PUMPING  
AND WINDING GEARING, &c.

ALEXANDER CHAPLIN AND CO.,  
CRANSTONHILL ENGINE WORKS, GLASGOW.

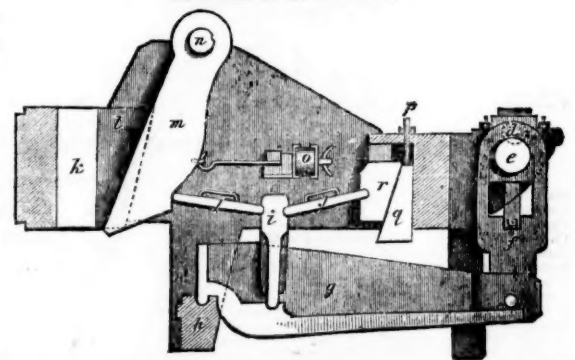
OFFICES,  
9, ADAM STREET, ADELPHI, LONDON, W.C.  
DEPOT,  
LOWER FORE STREET, LAMBETH, S.  
(Near the steamboat pier.)

**HENRY HUGHES AND CO.,  
FALCON RAILWAY PLANT WORKS,  
LOUGHBOROUGH,**  
ENGINEERS, IRONFOUNDERS, BOILER MAKERS, and MANUFACTURER  
EVERY DESCRIPTION OF RAILWAY MACHINERY.



LOCOMOTIVE ENGINES, for MINERAL and CONTRACTORS' RAILWAYS, of  
the best materials and workmanship, always in progress. These engines are designed  
to supply the chief requisites in tank locomotives—viz., reduction of the overhanging  
weight at the fire-box end, proper distribution of the weight upon the wheels, and keep-  
ing the centre of gravity low. These are accomplished by making the fire-box and its  
shell on an improved principle, which enables the driving axle to be placed further back  
without interfering with the eccentrics and valve gear, which are of the usual simple  
description. LONDON OFFICES, 84, CANNON STREET WEST.

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crushing the hardest stones and quartz.

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Oreoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons  
of the hardest copper ore stone per hour.

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